





DEDICATION.

TO

HENRY HOLLEMBÆK, M. D.,

Professor of Materia Medica and Therapeutics in the Eclectic Medical College of
Pennsylvania,

IN ADMIRATION OF

THE HIGH PROFESSIONAL ATTAINMENTS

WHICH HAVE PLACED HIM

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
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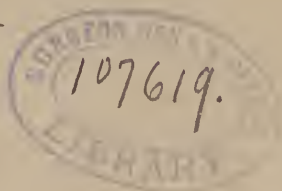
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INTRODUCTION.

The immortal spirit of our Creator gives the individual life its own individual form, and raises to the rank of living creatures and clothes with loveliness the organic matter—MAN—which grows, moves, breathes and thinks. The organic materials are the property of the individual form only so long as it retains them, and no longer—being a floating capital. Over the innate essential of the material it has no control. Life cannot make the brute materials which it uses live longer than that which it leaves unused; but it has the power of making them anew, and building them up in a certain shape for the time they are made to last. Life rests on change, metamorphosis—and, just in proportion as this change is thorough, the more perfect is the individual. If renewal stops, the body no longer lives; if it partially stops there is disorder; the natural equilibrium is destroyed, and we have disease.

There can be no such thing as an excess of life—of vital action; there cannot be a too active condition of the vital forces, for an active condition of the springs of life produces more rapid renewal of tissue fresh from the organic cell, more serviceable for work, possessing more real vital tenacity and endurance. The typical development of the human form is more exact or perfect as the subject lives in obedience to natural law and order—to the rules and regulation of hygiene.

Life being an unending change, the more active the building up of tissues the higher the development, and the result is health. If

renewal of the body ceases there is death; if renewal is partial, or incomplete, there is disease.

Degeneration is a relapse into a lower grade or form of organic life, and constitutes the principal part of disease; for disease, in all cases, is a lower or diminished vitality. An increased circulation of the blood beyond a healthy standard denotes diminished vitality—a loss of vital power.

Health consists in perfect continuous harmony between waste and supply. The cure of disease consists in bringing about this harmony by restorative treatment, namely, in building up the vital forces, in restoring the balance, in raising the depressed vitality of the deficient functions.

Health is a perfect equilibrium—perfect harmony. Disease, or a deficiency of health, consists either in a deficiency of building up or in a deficiency of waste—of construction or destruction.

Disease is a deficiency or a depression of vitality, and the object of an honest physician is to cure, to aid nature; for it is to the inherent vitality of the patient, aided by proper means, that the sick person owes his recovery. Remedies are only valuable in so far as they aid nature—aid diseased organs to effect repair. If a drug calls forth vital power, and aids the system in throwing off some miasmata, or in rectifying some irregularity, it is a true healer. The work of the physician is mostly of a constructive character, giving remedies that tend to establish vital power.

The weaker the life, in all forms of disease, the quicker the heart beats—the more easily is it excited. Inflammation demonstrates that there is a decrease of vitality, and all the indications are, that it should be treated with means calculated to increase vital power, for, if we use debilitating agents, we increase the difficulty.

Convulsions are more frequently due to a depression, debility, anæmia of nerve tissue; and the intractability of cure results from the character of the structure affected.

The nervous system is the most tenacious of life, and, when vital decay takes place there, the difficulty of renewal is slow, but the same guiding landmarks exist.

If the effort of nature is properly aided in the eruptive fevers there are fewer complications; and how quickly are they aborted when the peculiar characteristic of the poison is appreciated.

To aid nature should be the sole aim of the enlightened physician—to aid her with nature's bounteous means in the hour of her depression—not by stirring up a terrible disorder in an opposite part of the organism, according to the law of contraries—not by administering remedies that produce analogous symptoms to the disease—but rather let our object be to establish, cultivate and perpetuate a rational system of medication, based upon science and the demonstrations of such men as THOMPSON, BEACH and POWELL.



THE AMERICAN PRACTICE OF MEDICINE.

ABLUTION.—Every person suffering from any form of disease should be bathed daily, and if it is of a febrile or inflammatory character, sponging the body three times daily with an alkaline wash—water impregnated with the bicarbonate of soda acts like a charm. In all diseases where the liver is lardy or sluggish in its action, sponge the patient with water acidulated with nitro-muriatic acid; in diseases of debility, as marasmus, anæmia, &c., with salt water; in scrofulous affections, salt water and tincture iodine, or iodide potass; in mercurial and venereal diseases, water medicated with iodide potass, or sulphuret of potassium.

Bathing or sponging the entire body several times daily promotes elimination, equalizes the circulation, gives the blood a determination to the superficial capillaries, removes local congestion. Water is an excellent therapeutic agent when used with good judgment, and as an adjunct to proper medicinal treatment.

ABORTION.—This term is applied to the expulsion of the fœtus before the seventh month of utero-gestation, or before it is viable. The causes of this accident may be referred to the mother, more particularly the uterus, or to the fœtus and its dependencies. The cause, as far as the mother is concerned, may be extreme nervousness, high impressibility, debility, plethora, fatty degeneration, mental emotion, violent exercise, &c. The causes seated in the fœtus are its death, rupture of the membranes, mechanical violence. The most common period of occurrence is about the sixteenth week.

If there is a predisposition to abortion, we usually find pain in the back, aching in the limbs, frequent micturition; first a slight glairy discharge, then tinged with blood, hemorrhage, with or without flakes of decidua, pain intermittent in character, latterly almost continuous and bearing down. When it once occurs, it is extremely apt to recur in subsequent pregnancies about the same period.

Prevention is an important measure if we are satisfied that there is no detachment of placenta or rupture of membranes. We must positively control uterine contraction by opium, in sufficient doses to allay all contraction; but if rupture of membranes or detachment of placenta has occurred, ergot or macrotin should be freely

given to expel the contents of the uterus by exciting powerful contractions in that organ.

The treatment in all cases must be adapted to the constitution of the patient, and the cause giving rise to it. In all cases the horizontal position and perfect rest are indispensable. If flooding is threatened before expulsion of the fœtus, plug the vagina, and give

R_y.—Ergotine, ℥ii;
Aqua cinnamon, ℥iv.—*Mix.*

A teaspoonful every ten minutes.

If it threatens after the expulsion of the fœtus, give erigeron freely; and if the case demands it, plug the vagina with cloths saturated with vinegar, or use the india rubber bag, which makes an admirable and easily adapted plug. The application of a roller from the umbilicus to the middle of the thighs, with a compress over the region of the uterus, cold drinks, head low, pelvis elevated; the swallowing of little pieces of ice to promote contraction of the uterus should not be neglected. If these means fail, inject the cavity of the uterus with

R_y.—Carbolic acid, ℥i;
Water, ℥iv.

Mix and throw up at once.

It seldom requires to be repeated.

After the hemorrhage has been perfectly controlled, give tonics and mineral acids, as comp. tinct. cinchona and nitro-muriatic acid.

To produce abortion in deformed women, various contrivances are resorted to, but none of them should be used until we are thoroughly satisfied of the viability of the fœtus, and then the best means for its preservation should be resorted to.

The insertion of Barnes' dilating bag in the neck of the uterus, and gradually inflating it, will bring on and terminate a labor in three or four hours—it saves the membranes, and gives the child the best chance for life. The injection of warm and then cold water alternately into the uterus, will excite contractions and bring on labor. The insertion of the sound and puncturing the membranes, the administration of emmenagogue remedies, the application of electricity, positive pole to the spine, and the negative over or in or around the uterus.

Abortive remedies are very numerous, and terribly destructive to the female economy.

Betin, cotton root, sabin, &c., produce a determination of blood to the uterus, a true hyperemia, and in this creates a separation of its contents.

Ergotine, cimicifuga, maerotin, &c., acts through the nerves of the uterus, exciting contractile efforts.

Aloes, podophyllin, hellebore as irritants.

Iodide potass., iodine, act by their absorbent action.

ABSCESS.—An abscess may be defined as a collection of pus in any cavity, the result or consequence of inflammation. Various distinctive terms are employed for abscesses—an acute abscess, one that follows violent inflammation; a chronic abscess, the result of chronic or scrofulous inflammation; a symptomatic abscess where the pus may be at the groin, and the disease or seat of trouble at the lumbar portion of the spine.

An abscess begins with all the usual signs of inflammation, febrile excitement, throbbing pain, bright redness, swelling firm in the centre, oedematous all round. Suppuration is indicated by rigors, subsidence of the febrile condition, change in the character of the pain, which is converted into a sense of weight, tension pulsatory; then it becomes soft in its centre, loses its bright arterial color, and its centre begins to point, assumes a pyramidal form, fluctuation can be detected, and it gradually becomes more prominent and soft, and finally bursts or is opened by art. Once the matter is discharged, the cavity of the abscess becomes filled up by granulations, which, if the vital powers of the patient be strong, will be numerous, vigorous, and quickly fill up the chasm. Then the process of cicatrization begins—a white pellicle extends from the circumference gradually over the whole surface, which becomes organized into a new cutis and cuticle.

Acute abscess is mostly idiopathic, or a sequel of some disease, frequently caused by blows, ecchymosis, foreign bodies. A chronic abscess is always the result of a low form or grade of inflammation, slow in its progress, free from pain, tenderness or swelling, or redness unless accidentally inflamed. They often attain an immense size.

If an abscess has once formed, all our efforts should be directed to promote its evacuation. For this purpose, heat and moisture are the remedies calculated to promote suppuration; hot poultices of slippery elm and flaxseed, and as soon as fluctuation can be detected, free openings, and, after opening, throw into its cavity a solution of carbolic acid in the proportion of one ounce of the crystals to six ounces of glycerine. Inject daily, and dress with the same, keeping a piece of lint wet with it constantly applied.

The walls of an abscess after the application of the carbolic acid has no disposition to form pus. The atmosphere, that potent cause of stimulation and decomposition, is prevented from acting by the powerful antiseptic character of the remedy. Instead of injecting, I have inserted pledgets of lint, saturated with the solution, with the same good effect. Indeed, the moment the carbolic acid is brought to bear on the abscess, all the process of suppuration ceases. All constitutional symptoms also are abated. With this agent there is no fear of opening abscesses connected with caries of the vertebra, hip, knee, ankle, psoas abscess. Throw in the antiseptic fluid, and good-bye to suppuration and its effects. The application of this agent prevents the occurrence of suppuration, and promotes instantaneous relief.

ACHOLIA.—An arrest of the functions of the liver, so that matters, from which bile is formed, accumulate in the blood, producing toxæmia. It is a condition that is very apt to arise in all diseases of the liver, as acute atrophy, inflammation, impermeability of the bile ducts, cirrhosis, cancer, fatty degeneration, nutmeg liver, &c.

Symptoms.—Peculiar and varied state of the nervous system, excitement, delirium, convulsions, typhoid prostration, coma, hemorrhage from nose, stomach and bowels, ecchymosis, jaundice.

Treatment.—Active purgation, comp. powder podophyllin, leptandrin, jalapin, cuonymin, benzoic, nitro-muriatic acid, hydrochlorate of ammonia, counter-irritation over the liver, with nitro-hydrochloric acid; baths of same.

ACNE.—A pustular eruption, making its appearance generally upon the nose, face, forehead and shoulders, first in the form of a thickening redness and induration of the integuments, from which eventually proceed points or tubercles. The parts affected acquire a depth of redness and conspicuousness which annoy the patient. Some imagine that the malady consists in a diseased condition of the sebaceous follicles, induced either by some derangement or excessive indulgence. Properly a chronic tubercular skin affection, characterized by small isolated pustules, with deep red bases. Afterwards these pustules suppurate and burst, and leave behind them hard red tumours. The seat of acne is in a sebaceous follicle of the skin.

VARIETIES.—There are several varieties—*acne simplex*, *acne indurata*, *acne rosacea*, *acne syphilitica*, characteristic distinctions indicated by their names.

Acne Simplex, Acne Indurate, or Punctata.—maggot pimple, most common about puberty; appear on the forehead or sides of the cheeks, are very protracted, and frequently leave indelible cicatrices. In their primary stage they consist of a number of black points, surrounded by a very slightly elevated border of cuticle. It proceeds from concreted sebaceous matter, accumulated in the follicular glands, and may be squeezed out of those glands or thin ducts. They often inflame and form small tubercles, which suppurate easily.

Acne Rosacea.—*Rosy drop, carbuncled face*, usually attacks the nose, and spreads from the sides to the cheeks, covering only a part of them. It consists of small tubercles, which suppurate slowly, exhibiting a brilliant shining redness, and an irregular granulated appearance of the skin. Pale in the morning, and becomes intensely red from excitement. The cuticle gradually thickens—its surface diversified by cutaneous veins, which become varicose and suppurate. *Acne rosacea*, late in life, is usually caused by excess in eating and drinking.

Acne Syphilitica.—Caused by the constitutional influences of secon-

dary syphilis. It resembles acne rosacea, appearing on the forehead, face, neck and upper part of the trunk.

TREATMENT.—The general indications at the start are, to regulate the digestive and uterine systems, an active condition of the liver, kidneys and skin, and thus relieve the clogging up of the sebaceous glands. Careful regulation of the diet, abstinence from all stimulants, daily alkaline baths, fresh air, are appropriate elements in treatment. Internally, alteratives, tonics, as comp. syr. stillingia, iodide potass, rumin, frostwort, &c.

Locally, our remedies are abundant.

Chlohydric acid may be used as a local application. If used as concentrated as possible, just as much as the patient can bear without feeling a burning sensation, and, after thirty or sixty seconds, wash the wet part with pure water, then soap and water. If the patient is very sensitive dilute with glycerine. This remedy stimulates the circulation of the blood when it is periodically arrested, and does not produce the least injury of the skin. A good prescription is the following:

R_y.—Compound infusion armoracia, ʒi;

Comp. spts. ammonia, gtt. x.

Mix and apply to the affected part.

A still better formula is:

R_y.—Ointment subnitrate bismuth, ʒi;

Prussic acid, ʒi.

Mix and rub over the affected part morning and night.

Another good recipe:

R_y.—Rumex ointment, ʒi:

Muriate ammonia, ʒii;

Iodide potass, grs. xxx.—*M.*

Use as above. But perhaps the best formula is:

R_y.—Sulphur ointment, ʒi;

Muriate ammonia, ʒii;

Iodide potass, ʒiii.—*M.*

Apply over night.

Constitutional syphilis manifests itself in two forms, the glandular and follicular. In the glandular form the inflammation attacks the epithelium, the proper walls of a sebaceous gland, and the neighboring tissue. It exists in a stage of eruption or suppuration, retrogression or atrophy, and one of desquamation. Acne is often the first manifestation of secondary syphilis, localized on the face, neck, trunk. Follicular acne is seated in the subcutaneous cellular tissue.

ACUPRESSURE.—It has been the aim of all conservative surgeons in the treatment of wounds, amputations, &c., to obtain primary union. Means for this purpose are daily becoming more abundant; with carbolic acid we can at once render a compound fracture a simple one; with acupressure we can often dispense with ligatures

in a wound after amputation, and so obtain union by first intention. One of the modes of applying acupressure consists in passing an appropriate needle through the skin and deep parts, so as to completely compress the vessel and close it. In amputation at the shoulder joint, the insertion of the needle two inches from the edge of the flap on the cardiac side of the bleeding point through the skin and subjacent parts directly under the vessel, and then brought out beyond; and if the amount of compression is not great enough, make the figure 8 suture over the needle, so as to bring the inner coats of the vessel in direct apposition, and thus block the current.

This is the most useful of the various modes of applying acupressure. The philosophy is to obtain adhesion of the inner walls, coagulation of the blood, and the extremity of the vessel will shrink into an impervious cord. The mode of applying acupressure in the wound is not so successful in practice as the other modes, unless for the purpose of torsion.

In using acupressure as a means of arresting hemorrhage, the wound should not be dressed for several hours, not until all oozing has ceased, and the greatest care should be exercised that no coagula remain; then lead sutures should be used, the wound brought neatly together, and between each suture lead ribbon and collodion should be used instead of adhesive plaster, and dry lint applied, or lint applied wet with carbolic acid, and this dressing should not be disturbed for several days.

ADDISON'S DISEASE.—This is a peculiar degeneration of the supra-renal capsules; the most prominent symptom is discoloration of the skin and incurable anæmia, but the disease often exists without the skin becoming of a dingy or smoky hue. The treatment is laid down under supra-renal capsular disease.

ADENITIS.—Inflammation of the lymphatics may supervene from a great variety of causes. It may supervene from some constitutional disorder, from local violence, as blows and kicks, from irritation or absorption of acrid matter from ulcers, venereal or otherwise, from simple injuries, as punctures, inoculation from some irritant fluid. When it arises from a puncture, the inflammation begins in the absorbent vessels leading to the glands, which appear as red lines under the skin, and feel hard, cordy and tender; it may stop at the elbow; but, in severe cases, the glands of the axilla swell and become exquisitely painful. There is great febrile disturbance.

Simple adenitis is very common from an irritating cause. *Tubercular adenitis* is often met with in strumous patients; *syphilitic adenitis*, resulting from the absorption or irritation of venereal matter; *malignant adenitis*, &c. If the lymphatic glands of the me-

sentery are affected, we have a special form of the disease, known as marasmus.

Symptoms: acute form.—Feeling of oppression, languor, slight chills, symptomatic fever, one or several glands swell, become hot, hard, tender, painful, as the swelling or tumefaction increases, skin over gland becomes red, livid. If resolution does not take place, the acute stage subsides into chronic, suppuration takes place, abscess forms in interior of gland or in surrounding areolar tissue.

Chronic form.—Induration with persistent enlargement, pain and heat slight, skin retains its natural color, areolar tissue unaffected, so that the gland remains movable.

Tubercular adenitis is usually chronic; glands of the neck and angle of lower jaw more frequently affected than any others. Children of a strumous habit are more liable to this affection. Adults, rarely afflicted. Very seldom any premonitory symptoms; generally, the first indication of the disease is an indolent swelling of one or more glands. If the adenitis increase, and if there is a tendency to suppuration, system suffers considerably, the patient becomes restless, irritable, tongue furred, pulse quick and feeble, bowels costive, appetite fails, urine scanty and loaded with urates. If the general health is bad, the inflamed glands rapidly suppurate, undergo disorganization, the surrounding tissue and skin becomes involved, extensive indolent ulcers form.

Treatment.—If seen in the early and acute stage of the disease, give an emetic of comp. inf. lobelia and capsicum, act freely on the bowels with comp. powder jalap and bitartrate potass, an occasional vapor bath; follow these with iodide potass, or ammonia, iodide iron, quinine, cinchona, compound syr. stillingia, bromide of potass, or ammonia, irisin. If the case is one of struma, sulphate of soda, chlorate of potass, phosphorus in glycerine, gold, salt water bathing, nourishing diet, milk, cream, sea air, and the general treatment of scrofula.

Locally, pressure, phytolacca, iodine, iodide of lead ointment, muriate ammonia and iodine, terchloride of carbon.

ALBUMINURIA.—An escape of albumen by the kidneys, often due to anæmia, leucocythema, purpura, poverty of blood, or a devitalized condition of that fluid, and is best treated by nourishment, as beef, milk, eggs, and remedies that will astringe the kidneys, and so prevent its escape, hence the value of port wine and gallic acid, iron, erigeron, cinchona, hydrastin, mineral acids, remedies that will increase fibrine, impart vitality, construct new life and promote coagulability of the vital fluid.

The presence of albumen in the urine is an important consideration, and the treatment must be special. Iron to restore the blood-discs to a sound vital condition, phosphorus to increase vital power, small doses of digitalis or gelsemin to relieve renal engorgement, strychnine in $\frac{1}{10}$ grain doses to stimulate the muscular fibres of the

heart, cinchona and hydrastin to give tone, sponging daily with water acidulated with hydrochloric acid, flannel next the skin; the electric action of the animal fibre is most salutary.

ALOPECIA—Falling of the hair is due to many causes, generally those of a debilitating character. In fevers and other diseases, it is a common symptom; it may be congenital, then it is due to some weakness of organization; it may occur in old age, then it is incidental to decay. We have found the following prescriptions very valuable in cases of falling of the hair:

R̄.—Spts. ammonia aromatic;
Tinct. cantharides;
Glycerine, āā ʒiss;
Aquæ rosea, ʒvi.—*M.*; or,

R̄.—Tinct. kino;
Tinct. sanguinaria cura;
Tinct. lobelia, āā ʒiii;
Glycerine, ʒii;
Cologne, ʒi.—*M.*

Rub into the scalp once daily.

AMAUROSIS.—Impaired vision, coming on gradually or suddenly, and the loss of sight, more or less complete, resulting from disease of the brain, optic nerve or retina. Reflex amaurosis is due to remote causes, as irritation of teething, worms, ovarian or uterine disease, pregnancy, lactation, &c.

This disease often comes on after over-exertion of the eyes upon minute objects, or when the digestive organs are disordered. There is usually no pain in the eye, but there may be a desire for light, or a dryness of the eyes and nostrils; there is usually a staring, unmeaning look in the eyes; an uncertain gait; his eyes, instead of being directed towards surrounding objects, have an unmeaning look—a vacant stare. In incomplete amaurosis, movements of iris sluggish, eyes prominent, pupil dilated, the eyeball firmer or softer to the touch than natural; after-vision is extinct, the pupil is more or less dilated and motionless. Sometimes both eyes are amaurotic, and the motions of the iris continue under the nervous influence of the subsidiary nerves as branches of the third and fifth pair. If both eyes are affected they are unnaturally prominent, of an unhealthy color; sclerotica often of a yellow hue and covered with varicose vessels.

DIAGNOSIS.—It will be distinguished from cataract by the dimness or loss of sight being either sudden or partial. In cataract the difficulty of seeing increases slowly, and is compared to a mist or fog, or thin cloud, or gauze intervening between the eye and the object. In cataract the opacity generally begins in the centre of the lens, and the misty or foggy appearance is most noticed when

the patient looks directly forward, vision being most distinct when he looks sideways. This seldom occurs in amaurosis. In amaurosis the patient desires strong light; in cataract strong light contracts the pupil, and thus renders vision less perfect. Amaurosis is generally associated with headache, vertigo, cerebral or digestive disturbance, at least in the early stages. Cataract has seldom such associations. In amaurosis the pupil is either jet black, as in health, or of a green color. In amaurosis with glaucoma the opacity is always greenish, in incipient cataract grayish. Vision, in cataract, is better in a dull light; it is the reverse in amaurosis. In cataract a patient can always tell light from darkness; it is not so in amaurosis. In pure amaurosis the three images of a candle are as distinct as in the healthy eye, which is not the case in cataract.

The ophthalmoscope reveals usually either: blood extravasated



from the retina and choroid, or effusions of serum, or irregular patches of black pigment scattered over the retina, or yellowish spots, fatty degeneration, or optic nerve enlarged, or surrounded by dusky halo, or a crescentic patch at its margin, or of an extreme whiteness, congestion.

SYMPTOMS.—The partial or total loss of sight, which characterizes this disease, is principally dependent upon a diseased condition of the optic nerve and retina. Amaurosis occurs at all ages and in both sexes, but is most common at the cessation of the menses in females, and at the age of forty or fifty in males. At the commencement, a failure of sight only experienced occasionally, as after long continued exertion of the eyes by reading by candle-light, &c. Sometimes it begins with indistinct vision, or objects appearing double, or one-half of an object may be seen.

The chief circumstances which predispose to it are: a plethoric and sanguineous temperament; hereditary predisposition; congestion of the head and eyes; a debilitated constitution from the use of drugs, stimulating drinks, venereal excesses.

The precursory symptoms are: pain in the forehead and temples, diminishing with the advance of the disease, vertigo, sparks or moats, or muscæ volitantes float before the eyes, annoying the patient in reading or writing; a stronger light than usual is demanded; a slight diminution in the brilliancy of the pupil. These symptoms become more developed, and terminate, if not relieved, in amaurosis.

Amaurosis is attributed by most authors to a paralytic condition of the optic nerve, retina or thalami nervorum: and the peculiar immovable condition of the pupil and iris indicate a loss of sensibility and contractility in these structures; and the whole range of symptoms point to a loss of tone in the whole organ.

Like all nervous affections it is often intermittent, often, also, a temporary attendant of some morbid condition of the system, as disordered menstruation, hysteria, worms, irritation of indigestible food.

In young and plethoric amaurotics, a determination of blood to the head and eyes, a constant stupefying headache, sensitiveness to light, a full, hard pulse, a sense of fullness, tension, pain in the affected eye.

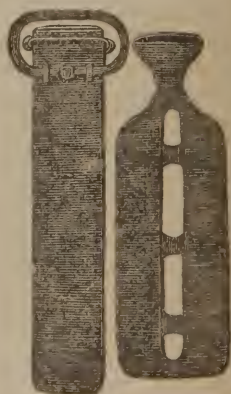
Varieties.—Amaurosis is divided into functional and organic—the one depending upon some sympathetic or other disorder which does not affect the inherent structure of the nervous apparatus of the eye; the latter on organic disease—destruction of nerve tissue.

CAUSES.—Anything that will exhaust the retina, or over-stimulate it, as long continued exertion of the eye on minute objects, exposure to glaring sunshine, heat, organic change, inflammation, concussion, compression from extravasated blood, fractured bone, morbid effusions, tumors, aneurisms. Perhaps the most prominent predisposing cause is hereditary disposition; and the most common exciting cause over-exertion, or long continued excitement.

TREATMENT.—The indications of treatment are self-evident; to rectify any disorder that may exist; to equalize the circulation, and keep the blood from the brain; stimulate and restore the excitability of the retina. A specific classification is indispensable to guide us to a rational treatment, such as the following: 1. *Inflammatory*; 2. *Atonic*; 3. *Sympathetic*; 4. *Poisons*; 5. *Organic disease*.

(1.) **INFLAMMATORY.**—If there be plethora, headache, giddiness, red, turgid, bloated countenance, with a hot skin, hard pulse, frequent streams of red-hot balls before the eyes. If there be a wound or a blow on the eye, or a flash of fire or lightning have struck the part, or if there be congestion from over-exertion, or if there be a suppression of some accustomed evacuation, as the menses, &c.

Begin treatment with an emetic of lobelia and eupatorium; follow with an alcoholic vapor bath, then a cathartic of the comp. powder of senna and jalap. Strict quietness, counter-irritation behind the ears, nape of the neck; then put the patient upon full doses of aconite and belladonna; if the result of an injury, arnica; if plethora be



great, veratrum; keep up a thorough active condition of the secretions. I have derived most decided results from the application of Chapman's ice bag to the cervical portion of the spine for about ten minutes thrice daily.

(2.) ATONIC AMAUROSIS.—This form of amaurosis generally comes on from debility, or after long illness, as a fever, leucorrhœa, hemorrhage, excessive lactation, or any debilitating circumstances. It is characteristic of debility, pale lips, trembling pulse, dilated pupils.

The safety of treatment and its efficacy depends upon supporting the general powers of the system. Place the patient upon the comp. tincture cinchona, in teaspoonful doses, every three hours; alternate with

R_x.—Hydrastin,
Sulphate quinine, āā grs. xx;
Extract nux vomica, grs. viii;
Capsicum, q. s.—*M*.

Thirty pills, three grains: one or two every three hours.

The pyrophosphate of iron, phosphorus, good diet, sea air, cold bathing. Strychnine in $\frac{1}{30}$ grain doses, alternate with phosphorus, is excellent to stimulate a torpid optic nerve into action. Persevere here with tonics and nourishment.

Subcutaneous injections of $\frac{1}{40}$ grain of atropia in solution by the hypodermic syringe, in the temporal region, is of great utility.

(3.) SYMPATHETIC AMAUROSIS.—This form usually depends upon some sympathetic cause, as apoplexy, gastric or intestinal irritation, from worms or other causes; accumulations of bile; fright; neuralgia; carious teeth; cessation of menses; the striking in of eruptions; metastasis of gout or rheumatism, &c., &c.

A complete removal of all suspected causes is the first step. If there is congestion remove it; if there is headache, vertigo, foul tongue, disagreeable eructations, constipation, remove them.

If the symptoms denote debility, a thorough supporting treatment; light, nutritious, invigorating diet; change of air, moderate exercise, vegetable and mineral tonics.

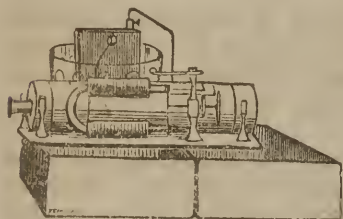
Electricity is valuable, weak currents at first, simply electrifying the face and forehead by means of wet sponges.

Repeat daily for two weeks.

An electric stimulus to the terminal twigs of the fifth pair of nerves has a good influence on diminished vision, by a reflex action. If there is no improvement, a full current



of Smith's to and fro, primary current, applied from temple to temple by large sponge electrodes, and reversed every quarter of a minute, till flashes of light are distinctly produced.



Small sponge electrodes may also be placed over the closed lids, a profound mode of electrifying the retina and optic nerve. Another method is to place the positive pole at the back of the neck, and with the negative apply to or about the eye.

(4.) POISONS. — Amaurosis is often produced by certain narcotic poisons, as stramonium, belladonna, poison-fungi, tobacco, &c. If the amaurosis persist, after the removal of the exciting causes, a judicious course of alteratives, tonics, with electricity, shower baths, &c.

If due to belladonna and stramonium, I give with good effect the following:

R_x. — Tincture camphor,
Tinct. calabar bean,
Tinct. capsicum, aa ʒi. — M.

Dose. — A teaspoonful every two hours.

(5.) ORGANIC. — This is the most hopeless of all the varieties. If the disease has followed an injury of the head, or an epileptic convulsion, or a mechanical injury, or paralysis; injuries of the fifth pair of nerves. In these cases a judicious use of alteratives, tonics, &c., should be tried, together with baths, fresh air, &c.

Diseases of the brain or its membranes may impede the functions of the optic nerves. The most kinds of organic amaurosis depends upon organic lesions, serous effusion, tumors, abscesses, softening of the brain. The optic nerve may be compressed or affected by structural changes in the adjacent parts. If there is degeneration of the optic nerve all remedies are useless.

AMENORRHOEA. — *Absence of the Menstrual Flow.* — Two varieties: *retention of menses* and *suppression of menses*.

Retention of Menses. — The catamenia are secreted but do not escape externally. It may arise from occlusion of the vagina, from an imperforated os uteri. Menses sometimes secreted, but retained in the uterine cavity, forming an appreciable abdominal tumor. It is sometimes necessary to make an outlet for the menstrual accumulation.

Suppression of Menses. — This is the most common form of amenorrhœa. The menses, perhaps, may have appeared regularly for a shorter or longer time, and become prematurely arrested. It often occurs suddenly while the discharge is on, from mental shock, some acute disease, exposure to damp or cold. In other cases it

takes place gradually, flow appearing at the proper time, but becoming less and less each time, and then entirely ceasing. Always some constitutional disturbance, more marked in abrupt than in gradual suppression. The gradual falling off, and then disappearing totally, is the most serious, for it usually depends upon anæmia, phthisis, chlorosis, albuminuria. Care is necessary in the diagnosis, so as not to mistake pregnancy.

Treatment.—The great secret of success here is to remove the cause. If there be anæmia, some of the preparations of iron and phosphorus, as

R_x.—Vallet's mass, ʒi;
Extract nux vomica, grs. x:
Betin, q. s.

Make thirty three-grain pills. One thrice daily. Hydrastin, cinchona, populin, as tonics; nourishing diet, brandy. If it be suppression from cold, hot hip baths, mustard, pediluvia, sinapisms to breasts, Turkish bath, ergotine, sabin, macrotin, myrrh, iodide potass, aloes, podophyllin, gossipiin, betin. If there be a suppression from plethora, comp. powder senna and jalap, aloes, bromide potass, ergot, avoidance of stimulants, iron, sabin, galvanism.

AMYLOID DEGENERATION.—In the human body there are two substances found, nearly allied but not identical in character, but both possessing nearly the same chemical properties, as starch, or a substance nearly similar. For a long period of time it has been known that the liver, spleen and kidneys frequently undergo degeneration of an amyloid character.

1st. Small bodies analogous to real vegetable starch, their form and shape bearing a great resemblance to starch granules; bodies often found in the nervous system, in the prostate gland of every male adult, and which sometimes accumulate in large quantities, so as to form prostatic concretions and other forms which occur in the lungs. In this class of cases the starch-like matter lies between the elements of the tissues; but there is another class.

2d. Where their component parts become filled with a starch-like or amyloid substance. The changes begin in the muscular fibre-cells of middle coat of small arteries; walls of vessels get gradually thickened, while their calibre diminishes. Then the morbid processes go on, involving the adjacent tissue, progressing onward till all the proper functions of the part are altered. Generally several organs are invaded simultaneously, and rendered incapable of performing their proper functions. Patients quickly assume a cachectic, broken down, anæmic appearance, lose flesh and strength rapidly, dropsy supervenes, urine becomes albuminous if the kidneys are affected, diarrhœa often sets in when digestion is involved, and, in spite of all remedies, a fatal result takes place. The diagnosis is often difficult when the liver, spleen or kidneys are affected. Post-

mortem appearances are well marked, and, with the aid of iodine, its detection is easy. If we incise a liver affected with amyloid degeneration, a feeling is communicated as if the knife cut through wax, the cut surface presenting a semi-transparent appearance. The gland is increased in size; bears a great resemblance to a fatty liver, but it is heavier: on handling, it has the sensation of a lump of wax, and if the disease be very extensive, notice of normal structure can be distinguished, but if seen in the early stage, the lobules are seen distinctly mapped out, owing to the matter being deposited within the lobule, and in and among secreting cells.

Amyloid degeneration may exist alone, or in connection with some disease, as tuberculosis, disease of bones, scrofula, syphilis. Thus, in struma or phthisis, we frequently have associated amyloid degeneration; it is often associated with disease of the bones, syphilis, &c. Extensive researches clearly and emphatically demonstrate that amyloid degeneration is always invariably associated with impairment of the nervous system, and frequently connected with struma, phthisis, Bright's disease, &c.

ANASARCA.—General dropsy, the more or less accumulation of serum in the meshes of the cellular or areolar tissue throughout the body. Dropsy commonly depends either upon disease of the heart, liver or kidneys. In disease of the heart, we may have hydrothorax, ascites and anasarca combined; in cirrhosis of the liver, ascites and then anasarca; in disease of the kidneys, general anasarca. This latter commonly begins to manifest itself by swelling around the ankles, and is characterized by tumefaction of the limbs, and of the soft parts covering the abdomen, thorax, and even the face; with paleness and dryness of the skin, and pitting when pressed upon.

TREATMENT.—Anasarca depends upon some affection of the kidneys, either a form of inflammation, or waxy or fatty degeneration, or an escape of albumen through inherent weakness of the kidneys, or extreme poverty, being so thin that its albuminous portion escapes with the urine. The special treatment will depend upon the cause. The general treatment for the removal of the effusion will consist in stimulating the skin, bowels and kidneys. Begin with an alcoholic vapor bath, repeat every day, or an alkaline bath, or a Turkish bath; sponge the surface every three hours with a warm alkaline wash. Use hot fomentations over the region of the kidneys. To excite a hydragogue action in the bowels, try first the following, which seldom fails to do its work efficiently:

R_y.—Podophyllum, pulverized, grs. xxx;
 Bitartrate of potassa, ʒiiss;
 Nitrate potassa, ʒi.—*Mix.*

Make ten powders, and give one every four hours.

To aid the podophyllum in still more exciting the absorbents, give

eight drops of the tincture of digitalis every four hours in a wine-glassful of water, with half a teaspoonful of bitartrate potassa. Continue steadily and perseveringly for a week. Make a decided impression—rid the system of the effusion. If these fail, try comp. powder senna and jalap; if that does not succeed, $\frac{1}{2}$ of a grain of elaterin thrice daily. These remedies might be aided with the fluid extracts of buchu, chimaphillum, uva ursae, comp. spts. juniper berry, &c.

As soon as the effusion is removed, or even before, come in with the special treatment according to the cause.

If it is dependent on an inflammatory condition, a few drops of gelsemin every few hours in buchu. Dry cupping first, and then the irritating plaster over the kidneys; rest, mucilaginous drinks.

If dependent on fatty or waxy degeneration, a strict avoidance of acids, saccharine or fatty substances should be inculcated. The diet should consist of animal food, as beef, eggs, oysters, to the exclusion of all vegetables or fruit. Our best remedies are the nitro-muriatic acid and comp. tincture cinchona, iron and quinine, hydrastin, sulphate in aromatic sulphuric acid.

If it is through weakness of the kidneys, or thinness of blood, gallic acid and port wine, tincture ferri chloride in 15 drop doses every three hours—the mineral acids—the most nourishing diet, beef, eggs, oysters, milk; an avoidance of acids, fatty and saccharine substances.

ANCHYLOSIS.—Immobility is a frequent result of injuries, inflammation and disease of joints. It is termed *true* or *bony* when the lymph that is effused after an injury or destruction of cartilage ossifies; *spurious* or *false* when it depends on thickening or rigidity of ligaments, &c. I have treated quite successfully ankylosis by forced rupture, that is, relaxing the muscular system thoroughly with the inhalation of ether, then forcibly bending or extending the limb, and afterwards placing the limb on a splint, keeping down inflammation with arterial sedatives and evaporating lotions. In two or three days repeating the process, and pursuing with passive motion until the integrity of the joint is restored. If any rheumatic taint is suspected, give alkalies sufficient to render the urine positively alkaline. If any tendon or muscle is rigid or inextensible, it should be divided, and a suitable apparatus applied to keep up and preserve the degree of extension, and endeavor to restore the normal functions of the joint. It is a remarkable fact that muscles which have been contracted for years, have a tendency to resume their natural state, provided they have not undergone fatty degeneration. Our treatment is greatly aided by friction, shampooing, kneading, vapor baths, electricity, and in the use of proper apparatus.

ANAEMIA.—Deficiency of red corpuscles in the blood, poverty of blood. The red globules, instead of existing in the proportion of 130 per 1,000 parts of blood, as in health, are reduced to 80, 60, 40 or even less. The liquor sanguinis is also deficient in albumen, but may contain an excess of salts. Although this deficiency exists in anæmia, there is never found any degenerated or abnormal or devitalized substance, as in cancer or struma—there is only a deficiency of blood discs—the absent globules have not relapsed into a lower form of life. A microscopical examination of the blood will decide as to the ratio of corpuscles.

SYMPTOMS.—The absence of the blood corpuscles gives us a defective supply of the materials of growth and nutrition. This defective supply weakens the vitality of all the manufacturing and excreting viscera; for their machinery needs continual repair. Hence, in anæmia, a pale, waxy, blanched appearance of that great gland, the skin—a blanched appearance of the mucous membranes—hence the feeble pulse, weak, flabby heart, the want of appetite. Hence the liver is sluggish, inert, and some of the bile pigment, which should flow by the proper channel, is retained in the circulation, exudes and stains the skin. The kidneys may also, through debility, imperfectly eliminate the urea, and we may have a serious train of symptoms, or this debility may be so great as to permit a passage of the albumen through them.

Aortic bellows murmur, *bruit de diable* in jugular veins, which is in proportion to the diminution of the corpuscles, and is continuous when the corpuscles are below 80 in the 1,000, due to the quick ventricular contraction of the heart with thin blood. This same thin watery blood has not only a marked effect upon the heart, but upon the growth of the thyroid gland, which becomes greatly enlarged, with a remarkable prominence of the eyeballs, all which, the *goitre*, the *weakened heart*, the *protrusion of the eyeballs*, may be traced to the same motive cause. Attacks of fainting, palpitation and dyspnœa, œdema, dropsical effusions into the pleura, pericardium or peritoneum, amenorrhœa, occasionally fatal syncope. Indeed, every symptom is characteristic of profound debility, owing to a want of red discs in the blood.

Anæmia is caused by a variety of circumstances which impoverish the blood, as mental derangement, care, disappointment, which arrests the activity of the assimilating viscera; hemorrhage, exhaustive discharges, starvation, disease, poisons.

DIAGNOSIS.—Anæmia is caused by any circumstance that tends to impoverish the blood, as hemorrhages, exhaustive discharges, certain diseases. Chlorosis is caused by some obscure cause operating on the nervous system, generally originating in reflex uterine irritation. In anæmia, the deficiency of the red corpuscles is pathognomonic; in chlorosis, the centres of life are depressed, nervous depression, exhaustion, hence the progress of cure is always slow, progressive.

TREATMENT.—The aim in treatment is to introduce, as quickly as possible, the largest amount of nitrogenous food, iron, chlorine and phosphorus into the system, so as to raise the standard of the vital fluid. Beef, eggs, milk, oysters—then iron, to supply the anticipated new growth of red discs with their metallic constituents. A soluble form of iron is the best.

Pyrophosphate in solution, teaspoonful thrice daily, or.

R_x.—Vallet's mass, $\mathfrak{z}\text{i}$;

Extract nux vomica, grs. vii.—*M.*

Make 20 pills. One three times daily. Chlorine can be supplied by giving the terchloride of carbon in five-drop doses every four hours.

Chlorine water may be tried, but if neither succeed quickly, put the patient at once upon hydrochloric acid, in six drop doses, every three hours. A hydrochloric acid bath, or sponging the body with water, acidulated with hydrochloric acid, once daily, its action is directly restorative. I have also used, with good success, water acidulated with hydrochloric acid, poured on beef cut up in small pieces—one pint of the water to two pounds of beef.

Chloride of sodium is a most important remedy in anæmia—it supplies the deficiency of salts. It is a powerful aid to treatment, to the building up of the body, the restoration of the devitalised fluid. It may be given internally and as a bath.

As the end of all sound medication is to build up and tone, we would give phosphorus in sufficient doses, in a soluble form, two or three times daily. This is a decided indication for this remedy in all cases of debility. Constipation can never be overcome by purgatives—their exhibition here is irrational, destructive. We would stimulate the nervous energy by nux vomica, a tonic stimulant, and elicits in every case a response—a peristaltic action.

To aid in restoring the deficiencies, chemical food; to give increased tone and more rapid absorption of food, cinchona, in the form of comp. tincture combined with nitro-muriatic acid, $\mathfrak{z}\text{ii}$ of the former to $\mathfrak{z}\text{i}$ of the latter. Gentian and hydrastin, pepsin, hypophosphites, permanganate of potass, inhalation of oxygen, nourishing food, milk, raw eggs, brandy and egg, poultry, glycerine and phosphorus, mineral waters, abundance of fresh air, moderate exercise, warm clothing, thorough hygiene.

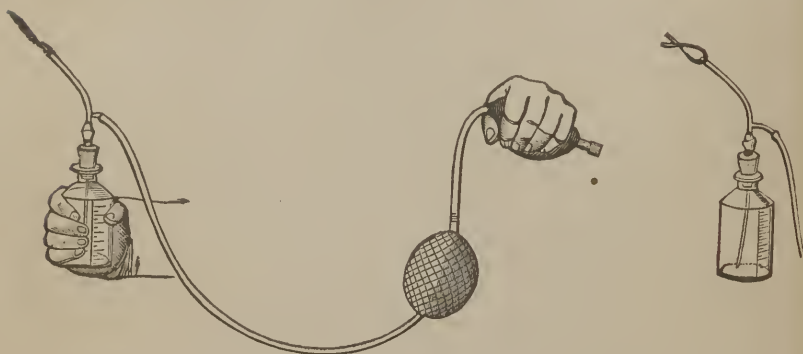
ANAESTHESIA.—This term is applied to agents; either applied locally or given internally, agents inhaled or breathed into the lungs in the form of vapor or gases, and passing with the blood into the nervous centres on which their action is exerted. Some of these agents produce congestion of the brain and spinal cord; others a species of intoxication, with a want of co-ordinating power; the sensory ganglia are affected, sensation and motion are suspended, and if the quantity inhaled be great, the action of the medulla

oblongata is suspended or destroyed, respiration ceases, then death. Various agents are used as anæsthetics, as ether, chloroform, &c. An excellent form is:

R_y.—Alcohol, ℥j;
Chloroform, ℥ij;
Ether, ℥iij.—*Mix.*

Shake well, and use on a sponge.

This induces the most profound relaxation—its effects are more steady and permanent.



Local anæsthesia is performed by throwing a spray of ether or rhigoline upon a part of the body until it is completely frozen, then incision, extraction, as the case may be, is performed without any suffering by the patient.

ANGINA PECTORIS.—A disease in which severe pain is felt about the chest, with a sense of strangulation and great anxiety. It most frequently occurs in advanced life, more common in men than in women. Often associated with fatty degeneration, or hypertrophy, or dilatation of the heart, and also with disease of the coronary arteries. There are several forms; persons of the rheumatic or gouty diathesis are more liable to its attacks; it may depend upon a nervous cause not connected with any structural lesion.

GENERAL SYMPTOMS.—Paroxysms of intense pain, constriction about the precordial region, feeling of suffocation, a peculiar horror of impending death. The attack seldom lasts more than a few minutes. It may come on at any time; if the patient is walking he is obliged to stop suddenly. During the attack, pulse slow, feeble, intermitting; breathing short, hurried; countenance pale, anxious, pinched; surface of the body cold, or covered with a clammy sweat; consciousness unimpaired. As the paroxysm passes off, the patient regains his usual health and is apparently well, but sooner or later a fatal termination is the result.

ACUTE ANGINA PECTORIS is sudden in its attack, pain severe in the cardiac region, and this extends to the shoulder, arm, wrist, fingers. When angina pectoris proceeds from hypertrophy of the heart, there are powerful pulsations of that organ, which are visible at a distance. When angina pectoris arises from dilatation of the ventricles, there is swelling and visible pulsation of the jugular veins, vertigo, syncope, weak pulse. When it is connected with disease of the valves of the heart, there will be great dyspnœa, violent palpitation, feeble, irregular pulse, unnatural appearance of the countenance, swelling of the feet and ankles. If it is *chronic*, the paroxysms recur frequently from trifling causes, the pain involves both arms, ascends to the throat and lower jaw, aggravated by the slightest movement, as coughing, sneezing. A neuralgic pain continues under the sternum.

It is distinguished from asthma by the acute and peculiar pain in the sternum and left arm, by the difference in the phenomena attending each. The dyspnœa of asthma depends upon the spasmodic contraction of the muscular fibres and their ramifications. Perhaps the neuralgic character of the pain and its severity will distinguish it from other diseases.

PATHOLOGY.—Angina pectoris is undoubtedly an affection of the nerves supplying the heart, stomach or lungs—that it has its seat either in a rheumatic or neuralgic condition of the par vagum, or pneumogastric system of nerves, its branches, terminations or communications.

TREATMENT.—If the patient is seen during the paroxysm, give diffusible stimulants, as brandy, wine, xanthoxylum, ammonia or capsicum; place him in a reclining position, then give hydrocyanic acid, or gelsemin, or belladonna, they have a beneficial effect on the paralysed nerves. Dry cupping between the shoulders is always safe and of great utility, as we have its revulsive effects without depletion. Ferminch's instrument is an excellent form, prompt and effectual; friction to the surface with stimulating liniments.

The treatment during the interval must be upon general principles and will consist in the alternated use of tonics and alteratives, as bromide potass, asparagin, ammonia, hydrastin, cinchona, iron, and nux vomica. Iron and hydrastin have a tonic power over muscular fibre, hence their value in affections of the heart. If there is great excitability, digitalis, aconite and veratrin may be indicated. Digitalis is objectionable if it is possible to get along without it, because it benumbs the heart, as well as the tract of the pneumogastric nerve. Other remedies, as quinine, iron, phosphorus, nux vomica, aconite, nitro-muriatic acid in comp. tinct. cinchona, counter-irritation over the cervical portion of the spine. Avoid all stimulants, especially alcohol, for this agent is the most deleterious the patient can get, for it deteriorates the vital stamina and is given with very mistaken views of its physiological action, for it impairs the contractility of muscular fibre, and in this disease it is

very injurious, as it also quickens the heart, causes capillary congestion, irregular circulation and mechanical dilatation. If purely nervous, valerianate of zinc, scutellarin, cypripedin, with a belladonna plaster over the heart, avoiding all stimulants, violent exercise, walking after meals, sexual excitement, mental and physical exertion. The occasional inhalation of the nitrate of amyl is attended with good results.

In the selection of remedies, the greatest attention should be paid to the remote and exciting causes. If the symptoms indicate an organic affection of the heart, our prognosis will be unfavorable. But if the cause consists of a diseased condition of the *par vagum* or *cardiac nerves*, which renders them liable to become morbidly excited, then we may prescribe special remedies for particular parts. The most reliable specifics in this malady are: asparagin, bromide potass, nux vomica, phosphorus, belladonna.

ANGUOLEUCITIS.—Inflammation of the lymphatic vessels may result from injury, or from absorption of some morbid matter, as in dissection wounds, scratches and abrasions, and coming in contact with lochial discharges or unhealthy sores.

SYMPTOMS.—Formation of bright red streaks running upward from the wound in the course of the absorbents, to the glands in which the vessels merge; streaks, tender to the touch; the seat of stinging pains; hard like cords; glands in connection with affected vessels become involved, get swollen and acutely painful. The whole limb rendered puffy and tender; great constitutional disturbance; chills or rigors; nausea; constipation; fever; restlessness; mental and bodily prostration. With good treatment, it often terminates in resolution, if not in suppuration or chronic induration.

TREATMENT.—My mode of treatment is as follows: Give a stimulating emetic of lobelia and capsicum, then unlock the secretions with

R_y.—Podophyllin, grs. iii;
Colocynthin, grs. x;
Bi-tartrate potass, ℥ii.—*M.*

Ft. six chart. One morning and night.

If accessible, a strong alkaline bath. Having thus opened the various outlets, I would put the patient upon ten-grain doses of the sulphite of soda every three hours, and alternate with

R_y.—Comp. tinct. cinchona, ℥iv;
Nitro-muriatic acid, ℥ii.

Dose.—Teaspoonful in water.

Give one grain of narceine three times daily, to allay pain. Locally, a saturated solution of sulphite of soda kept constantly applied over the affected part, covering over with oiled silk. The diet should be good, beef tea, milk, eggs, brandy and egg. Drink

should consist chiefly of water acidulated with nitro-muriatic acid. If the case does not yield in a few days, put the patient upon the compound fluid extracts of stillingia, iodide potass, and quinine, and paint the affected part with pure creosote; after which, sprinkle on pure nareeine, then a linseed poultice, covering over with oiled silk. Continue for a few days; when, if the case progresses well, establish a cure by vegetable tonics, as hydrastis, comp. tinct. tamarac. If it leads to suppuration, evacuation of pus by free incisions. The most thorough hygiene, well ventilated apartment.

I might illustrate this with quite a number of cases where the above treatment has been eminently successful in lymphangitis. Alkalies, as the sulphite of soda, have a peculiar action, dissolving clot or fibrine, and arresting fermentation. Creosote is excellent applied along the cordy swellings.

ANUERISM.—A tumor produced by the dilatation of the parietes of an artery. It may embrace the entire circumference of the vessel, and may extend to a great distance. When all the coats of an artery are dilated, but not ruptured, it is a *true aneurism*.

Dilatation with rupture of one or more of the coats, constitutes *false aneurism*. The internal and middle coats are frequently ruptured, the blood comes in contact with the external or cellular sheath, dilating it into a pouch or sac. The tumor condenses, acquires additional coverings, and becomes thick, and if the patient enjoys average health, the sac will contain fibrinous coagula. The division or rupture of an artery may result in extravasation of blood into the areolar texture, and thus form a diffused aneurism. *Varicose* aneurism can only happen where a vein runs over an artery; as when the brachial is punctured in opening a vein. The blood rushes into the vein, which becomes varicose.

The diagnostic symptoms of true aneurism in the various arteries are: extraordinary throbbing in a particular part occupied by a small, pulsating tumor, which disappears when compressed, but returns the moment the pressure is removed. The tumor has a tendency to increase in size. Aneurisms are termed traumatic and spontaneous, according to their mode of organization. They are also divided into internal and external, according to situation.

Aneurism is more common in males than females. The predisposing cause being some weakened or diseased condition of the walls of the vessel, as calcareous or fatty deposit, or some irritation of the coats of the vessel, by which its elasticity and vital power of resistance are diminished, as the use of alcohol, mercury—excitement, corporeal or mental, disease of the heart, physical causes, over-exertion, strains; blows may be exciting causes.

Aneurism, under certain circumstances, may terminate favorably by gradual contraction of the sac, by inducing the formation of coagula, by fibrinising the blood, by compression exerted upon and

above the sac, by obliteration of the artery from adhesive inflammation, or otherwise closing its calibre.

TREATMENT.—Nature points clearly and emphatically as to the mode of cure, the throwing out of coagulable lymph, which, with the fibrine of the blood, forms a layer more or less organized on the inner surface of the aneurismal tumor; this gives rise to membranous bands, which shoot down from all parts of the walls of the sac, which tends to retard the blood in its meshes, and thus aids coagulation. Everything that improves the health will aid this process—highly animalised diet, beef, eggs, oysters, milk. Improve the vital energies by cinchona, iron, mineral acids, phosphorus, but restrain or retard the action of the heart, keep the circulation at 65 or 70, to aid coagulation in the tumor—digitalis and veratrum will do this, strict quietness of mind and body, change of air, regular secretions. If this does not succeed, other remedies to fibrinize the blood, as

R̄.—Creosote, gtt. iii;

Panis, q. s.

Make 25 pills; one every three hours.

Alternate with teaspoonful-doses of the following:

R̄.—Comp. tinct. cinchona, ℥iv;

Nitro-muriatic acid, ℥iii.—M.

Hydrastis, and phosphorus, &c.

Pressure upon the artery above the tumor has succeeded. It mechanically diminishes the flow of blood through the sac; it physiologically enables the fibrine to coalesce, and become easily and readily entangled in the parietes of the sac, and, if the case is managed judiciously, this will increase until the contents of the tumor solidifies, and the circulation may be carried on by the natural channel, or else, obliteration may occur at the point; then the collateral branches become enlarged—the circulation is carried on by them. Compression is best effected by two or three instruments with graduated compresses.

A ligature applied to the artery, at some distance above the aneurismal tumor, cuts off the current, the pulsation in the tumor at once ceases, fibrinous coagula are diminished by absorption, and gradually degenerates into an impervious cord.

Electricity has been successful in producing coagulation of the aneurismal tumor. An injection of the following will produce instantaneous coagulation.

R̄.—Glycerine, ℥iv;

Carbolic acid, ℥i.—M.

Inject ℥ii or ℥iv, according to the size of the tumor.

But, of all modes of cure, I am most partial to constitutional means. *Fibrinize the blood, restrain the circulation, and coagulation is certain.*

Aneurism of Thoracic Aorta.—The symptoms of this form of aneurism are often obscure in the early stages, bearing a strong resemblance to disease of the heart. If the aneurismal tumor is large, and been developed quickly, there is disturbed action at the heart, with some modification of the radial pulse; dullness on percussion around portion of vessel from which aneurism springs; cough; wheezing; dyspnœa; hemoptysis; difficulty of swallowing and pain about the chest and back; superficial veins of the chest and neck œdematous. If the aneurismal tumor becomes very large and pulsating, and rises out of the chest, producing protrusion or absorption of sternum and ribs, then the diagnosis is easy. If the aneurism presses upon the trachea, there is dyspnœa and cough; when on one or both recurrent laryngeal nerves, aphonia, with troublesome cough, severe paroxysms of laryngeal suffocation, pain coming on at intervals. When on œsophagus, symptoms of dysphagia, engorgement of absorbent vessels and glands, inanition and symptoms of stricture. If the aneurism in the ascending is near to the heart, the patient suffers from angina pectoris; probably resulting from compression of the great plexus of nerves ramifying on each side of ascending aorta, and communicating freely with the cardiac ganglia and plexuses of the ventricles.

Contraction or dilatation of pupil on affected side; according as pressure is sufficient to paralyze, or only irritate, branches of sympathetic nerve. Often a bellows-sound can be detected. If the heart be compressed by a tumor, so as to impede the action of valves, a systolic or diastolic bruit will result. Pressure on aorta or on pulmonary artery may produce a murmur. In false aneurism there is generally a murmur both with entrance and exit of blood into the sac; or there may be one loud and prolonged and rasping bruit, from passage of blood over the roughened inner surface of vessel. In true aneurism, or mere dilatation of a part of the wall, murmurs seldom audible. Even a small opening into the canal of an artery into aneurismal sac, and a roughened state of the arterial tunics from degeneration, will give rise to a bruit. A peculiar thrilling or purring tremor is often felt over sternum.

The termination may be death from rupture externally or into pericardium, or into pleural cavity, or into trachea, or into bronchial tube. Or the patient may die from exhaustion consequent upon long-continued suffering. Or there may be fatal destructive inflammation of lung, owing to the compression of pulmonary vessels, or pressure on pneumogastric nerve.

Aneurism of Abdominal Aorta—This often gives rise to acute pain in lumbar region, shooting into either hypochondrium and downwards into the thighs and scrotum. Pain aggravated by constipation; tumor discovered by careful examination; constant and powerful pulsation communicated to hand. A short, loud, abrupt, bellows-sound will be heard.

TREATMENT.—In all forms of aortic aneurism, all bodily and

mental excitement must be carefully avoided. Pain, cough, dyspnoea, and other prominent symptoms must be alleviated. Generous diet—beef, eggs, oysters; attention to the digestive functions.

ANTHRAX.—Carbuncle or boil, a painful, hard, flattened, circumscribed tumor, but slightly elevated above the skin, extending through the entire cuticle, and even beneath it, so as at times to be an inch or more deep. The surface is red, of a mahogany tint, then purple, then livid; and after the parts heal up, the skin still remains red or of a deep brown, and the discoloration may remain for weeks.

It is essentially an inflammation of a circumscribed portion of the skin and subjacent tissue, with an infiltration of unhealthy lymph. A morbid process terminating in suppuration and ulceration.

Symptoms.—Flattened circular swelling, throbbing or dull aching pain, suppuration, slough of areolar tissue. The pain is peculiar, throbbing and burning; and when the carbuncle is fully formed the surface is livid and purple, the cuticle becomes raised into blisters, there are numerous points of postulation, and as the pus escapes, the cuticle appears to be pierced with small perforations, through which a core can be seen. The core is made up of a slough of a fibrous tissue of the inner part of the skin, and as it loses its vitality that tissue is converted into a grayish or whitish pulp, apparently soft and mixed with an ichorous purulent. Carbuncles vary in size from an inch to several inches in diameter.

They usually give rise to a great deal of constitutional disturbance, the patient being sleepless, anxious, irritable. A vitiated state of the blood, disorder of the digestive organs, imperfect action of the liver, long continued use of pork, fish, salt food, overcrowding, are predisposing causes.

Treatment.—The most prompt and positive relief is given by making a crucial incision quite through the diseased structure, and even a little beyond into the sound part. Instantaneous relief is the result. A soothing poultice of elm should be applied. If seen early, a saturated solution of belladonna kept constantly applied, or a saturated solution of opium; but, if later, the crucial incision. Caustic potass rubbed into the centre carefully protecting the adjacent parts.

Internally an emetic of comp. powder of lobelia, followed by comp. powder of senna and jalap, or podophyllin, saline aperients, mineral acids, stillingia, iodide potass. cinchona, iron, anodynes to relieve pain, nourishing food, change of air.

AORTITIS.—Acute inflammation of the aorta is comparatively rare; but I have met with cases of it occasionally complicated with rheumatism.

THE SYMPTOMS are usually obscure—great and general uneasi-

ness, followed by rigors and fever. Extreme difficulty of breathing, with an impending sense of suffocation. Excruciating pain and violent pulsation in vessel. Palpitation violent, loud systolic sound. Pulse may be unaffected.

The usual post mortem appearances are, changes in the coats of the aorta, the result of inflammatory action, often structural lesions, or degeneration of the proper tissues. I have detected very frequently mineral or ossific, amyloid, and atheromatous or fatty degeneration.

The remedies that I have found useful in this disease, have been veratrin to thoroughly control the action of the heart, iodide of potassium to promote absorption of effused products, to aid which I would dry-cup over the region of the heart, then apply the irritating plaster, changing it twice daily. I would give the following :

R_y.—Fluid extract colchicum ;
 Asclepias ;
 Jalapa.—*M*.

A teaspoonful thrice daily. Diuretics, warm baths, &c.

I was called, October 1, 1867, to visit Miss Williamson, who I found was suffering from an attack of acute rheumatism, febrile disturbance, the joints of the knee and ankle much implicated, &c. &c. I at once put her upon diuretics and diaphoretics, and the usual alkaline treatment, both internally and locally. When suddenly about the fifth day, when the patient seemed to be recovering well, she was suddenly seized with the following train of symptoms : great irritability, rigors, high fever, impending sense of suffocation, pain and violent disturbance in the aorta, violent palpitation of the heart, a soft, blowing murmur audible one inch above the nipple. The symptoms I referred to inflammation of the aorta.

To relieve the extreme irritability, I gave a subcutaneous injection of morphia, gave veratrin to bring the heart's action to seventy. Then I ordered colchicum and quinine— $\bar{5}$ i vin. colchicum rad. to gr. xx quinine. Teaspoonful every three hours, to be alternated with 10 grs. iodide potass. This treatment, with sponging and the administration of saline diuretics, was continued for three days with the best success—a subsidence of the symptoms, counter-irritation over the region of the heart. Under the use of alteratives and tonics the case progressed to complete recovery.

I have found the following rules excellent in diagnosing diseases of the heart :

Rules for the diagnosis of cardiac diseases.

1. In health, the cardiac dullness, on percussion, measures, immediately below the nipple, two inches across, and the extent of dullness beyond this measurement commonly indicates either the increased size of the organ or undue distention of the pericardium.

2. In health, the apex of the heart may be felt and seen to

strike the chest between the fifth and sixth ribs, immediately below and a little on the inside of the left nipple.

3. A friction murmur, synchronous with the heart's movements, indicates pericardial inflammation.

4. A bellows-murmur with the first sound, heard loudest over the apex, indicates mitral insufficiency.

5. A bellows-murmur with the second sound, heard loudest at the base, indicates aortic insufficiency.

6. A murmur with the second sound, loudest at the apex, indicates either (1) aortic disease, the murmur being propagated downwards to the apex; or (2) roughened auricular surface of the mitral valves; or (3) mitral obstruction, which is always associated with insufficiency, when the murmur is double, or occupies the period of both cardiac sounds.

7. A murmur with the first sound, loudest at the base, and propagated in the direction of the large arteries, is more common. It may depend (1) on an altered condition of the blood, as in anæmia; or (2) on dilatation or disease of the aorta itself; or (3) on stricture of the aortic orifice, or disease of the valves, in which case there is insufficiency, then the murmur is double, or occupies the period of both sounds.

8. Hypertrophy of the heart may exist independent of valvular disease. When it does take place, it is usually the left ventricle that is affected, and usually in connection with mitral or aortic disease—in the one, the hypertrophy is uniform, with rounding of the apex; in the latter, there is dilated hypertrophy, with elongation of the apex.

In addition, the nature of the pulse at the wrist; the nature of pulmonary or cerebral symptoms.

APHASIA.—A loss of the cerebral faculty of speech and the power of expressing thoughts by writings and gestures; a discordance between the gray and white matter of the brain and spinal cord; a simultaneous loss, in a greater or less degree, of the memory of words, the memory of acts, the memory of articulation.

Aphasia is often transitory, as we have occasionally during consciousness in fevers; it may be due to congestion of the brain. It may be permanent, due to softening of the brain, or cerebral hemorrhage, or apoplexy.

SYMPTOMS.—Sudden deprivation of the power of speech. Face intelligent; movements of lips and larynx healthy; a consciousness of what is wished to be expressed, but a perfect inability to express words. Aphasic patients may have perfect knowledge.

TREATMENT.—In cases of aphasia without chorea or hemiplegia, recovery may occur by the use of judicious means. We have probably in these cases a jarring or want of equilibrium between the gray and white matter of the brain and medulla oblongata. Now, if the pupil is contracted and indicates turgescence, congestion of

the brain. I have succeeded well with small doses of belladonna alternated with half drachm of the bromide potass., thrice daily, persevered with for months. At the same time, some preparation of phosphorus should be given, to promote the nutrition of brain tissue. If the pupils are dilated, if there is anæmia of the brain, calabar bean, in dose of fifteen drops of a saturated tincture, or six grains of the crude powder, may be given with the best hopes of success—still persevering with the phosphorus. I have found, also, alternated use of cold and warm water to the neck, in the form of a shower-bath, to be attended with beneficial results. The irritating plaster to the nape of the neck should be kept constantly applied. Iron, quinine, hypophosphites, fresh air, abundance of good food. If there is no organic difficulty, a cure will probably take place.

If we suspect the poison of lead, mercury, or syphilis to be the cause, iodide potass., the antidote, should have a fair trial in an alterative syrup, together with baths of the same salt.

In aphasia with apoplexy or hemiplegia, the treatment must be based on the indications. It is true, these cases are the most hopeless; but much good can be attained by proper means and a special class of remedies.

APHONIA.—Loss of voice, from organic and functional disease of vocal cords, varies in degree from a slight impairment to complete dumbness. The different species are: aphonia from absence of the tongue; aphonia from tumor of the fauces, or near the glottis; aphonia from disease of the trachea; aphonia from paralysis, or loss of nervous energy.

Two Varieties.—FUNCTIONAL AND ORGANIC.

(1) **FUNCTIONAL VARIETY.**—This form is most frequently met with in females, sympathetic or hysterical in type. Males of an effeminate character, extremely sensitive nature are also its victims, uterine irritation, ovarian excitement, leucorrhœa, amenorrhœa, or menorrhagia, generally allied with other symptoms, which indicates its true nature. Patients speak in a whisper for days, weeks or months, until the cause is removed, then the power returns. If it continues long, the vocal cords are liable to suffer from atrophy, or paralysis, become flaccid, powerless.

TREATMENT.—When functional, should consist in the exhibition of an emetic of equal parts of tincture lobelia, eupatorium and capsicum. Act upon the liver and secretions by

R_x.—Podophyllin, gr. ss;
 Leptandrin, grs. v;
 Ext. nux vomica, gr. i.—*M.*

And repeat if demanded.

Follow this with phosphorus, and alternate with one pill, every three hours, of the following:

R_x.—Ext. nux vomica, grs. x;
Sulphate quinine;
Hydrastin, āā., grs. xxx.—*M.*

Make twenty-five pills. If that fails, try—

R_x.—Strychnine, gr. i;
Camphor, grs. xxx;
Pulv. acacia, ʒi.—*M.*

Make twenty powders.

If that fails we may select from the following: quinine, cypripedin, iron, scutellarin, nourishing food, shower bathing, galvanism, and the daily use of the atomized spray; ammonia is excellent in an atomizer, spirits ammonia in water in various proportions.

(2) ORGANIC FORM.—This is caused by inflammation produced by the presence of some poison in the system, as syphilis, serous infiltration, ulceration of mucous membrane about vocal cords, as in syphilis; following diphtheria, morbid growths in or near larynx; disease of the brain, producing paralysis of muscles of the larynx.

TREATMENT—Should be adapted to the condition that exists, for cure of inflammation and ulceration about the vocal cords, swabbing the affected part with a solution of sesqui-carbonate of potassa, following this with a wash or gargle of sulphate hydrastin, five grains to the ounce, spray of permanganate of potassa, five grains to ounce of water. If there is swelling, a spray of iodine, or bromine, or ammoniacal vapor is excellent. A general alterative course should be pursued: comp. syr. stillingia, iodide or bromide potass, phosphorus, glycerine, iron.

APHTHÆ.—This affection consists of roundish, pearl-colored vesicles, confined to the lips, mouth and intestinal canal, and generally terminating in curd-like sloughs. It forms a special disorder of infancy, known as the *thrush*. In adult age, aphthæ is often produced in the course of some debilitating disease; it indicates debility, imperfect digestion, mal-nutrition. Two microscopical parasitic plants, *leptothrix buccalis* and *oidium albicans*, developed in large quantity, in and between epithelial cells of mucous membrane; filaments and spores of this fungi render epithelium friable, loose, swollen, and latterly ulcerated.

Aphthæ Infantilis.—This form appears in small, white ulcers upon the tongue, gums and around the mouth, palate, resembling small particles of curdled milk. If the mal-nutrition is bad, we have these white, creamy, circular spots scattered, but strongly tending to coalesce and break down into ulceration. From this abnormal condition, salivation is not abundant. The milk becomes immediately acidulated by the excess of acidity present.

It is attended with drowsiness, restlessness, debility, cough, difficulty in swallowing, vomiting, diarrhœa: the surface of the spots become brown or bluish after the loosening and separation of the

crusts; the local affection runs into a kind of gangrenous ulceration; the discharges from the bowels contain slime and shreds.

In debilitated children, improperly nourished and subject to depressing influences, the aphthous ulcerations become gangrenous; the edges shrink, become flabby and ragged; a brownish slough forms in the centre, and, on coming off, a granulated surface of a vermillion color remains; the ulcers become covered with a brown, creamy fluid, which exhales a gangrenous odor; the parts around the ulcers become tumid, soft, of a violet hue. The saliva becomes fetid, ropy, flowing from the half-open mouth. Countenance pale, puffy; pulse feeble; surface of the body pallid, deficient in sensibility. The vomiting and diarrhœa become profuse, exhausting; abdomen tympanitic; hiccough and eructations precede complete exhaustion and death.

CAUSE.—The disease is caused by mal-assimilation, the generation of acidity, which gives rise to the growth of a regular crop of cryptogamic plants, which usurp the healthy function of the mucous membrane, diminishes absorption—hence the marasmus.

TREATMENT.—Give the little sufferer an emetic at least twice a week. After the action of the first emetic, put it upon the following:

R_y.—Neutralising mixture, ℥iii;
Leptandrin, grs. xxx;
Sulphite soda, ℥ii.—*M*.

Half a teaspoonful every three hours.

To the aphthous spots, destroy the cryptogamic parasite at once. If the child is old, touch each spot respectively with nitric acid; if young, gargle or swab them with a saturated solution of sulphite of soda—this is instantaneous death to the parasite. This local treatment should be kept up for some time, until we rectify the diathesis, and bring about healthy nutrition. After we have brought about a change both in the ulcer and in the process of assimilation, then lotions of gold thread, borax and glycerine, chlorate potass., &c., &c.

Local treatment will fail, unless associated with proper constitutional remedies. Our best remedies are those that rectify acidity and promote assimilation; as,

R_y.—Comp. tinct. cinchona, ℥iv;
Nitro-muriatic acid, ℥ii.—*M*.

Half a teaspoonful every three hours, in sweetened water.

Hydrastin here is excellent. Frazerin is next best; rhusin acts well. Nutrition must be promoted. We would give

R_y.—Glycerine, ℥iv;
Acid phosphoric dil. ℥iii.—*M*.

Half a teaspoonful thrice daily.

Baths are important, daily salt-water bath, friction, warm clothing, exercise, fresh air. Hygiene perfect and thorough.

The diet must be the best—one that is calculated to promote health. It must be as nutritious as can be digested and assimilated; it should include beef, oysters, poultry, Liebig's food, milk, eggs.

Mercurial aphthæ is best treated by touching the spots with nitric acid, using the sulphate of hydrastin as a wash, and putting the patient under the influence of positive alteratives, as gold, stillicia, iodine, frostwort, rumin, irisin, &c., &c.

APOPLEXY.—This is truly a state of coma occurring suddenly from pressure within the cranium. There is a sudden loss of sensation, thought, power of voluntary motion, with more or less disturbance of respiration and circulation.

SYMPTOMS.—It is generally preceded by giddiness, pain and swimming in the head; ringing in the ears, particularly in stooping; a feeling of weight and fullness in the head, noises in ears, deafness, blindness, double vision, repeated epistaxis, nausea, numbness in the limbs, loss or impairment of mental faculties, great mental depression, incoherent talking, drowsiness, indistinct articulation, partial paralysis of a limb or the muscles of the face or eyelids.

A diminution or loss of sensation, more or less complete of motion. Comatose condition, depending upon pressure on the brain, either from turgescence of its vessels, or extravasation of blood. The general prognosis is unfavorable, especially when it occurs after the age of thirty-five. When apoplexy is accompanied with a full hard pulse, flushed face, it is called apoplexy sanguinea; when with a feeble pulse and pale countenance, and evidences of serous effusion, serous apoplexy. The symptoms vary according to the extent of the effusion, and the part of the brain in which the extravasation is located. If the fluid is so situated as to make pressure upon the hemispheres, there will be a sudden loss of consciousness, coma, and stertorous respiration; when the effusion occurs near the base of the brain, there is no coma or loss of consciousness, but loss of speech and paralysis.

CAUSES.—Hereditary peculiar conformation of body, sedentary habits, stooping positions, high living, protuberant abdomen, large heads, sanguine temperaments, short, thick necks, disease of the kidneys, heart or cerebral vessels, intemperance.

It may terminate in three ways. First, it may pass off, and leave the patient well; second, it may terminate in incomplete recovery, mind being impaired, and some parts of the body paralyzed; third, or it may terminate in death. The predisposing cause of cerebral hemorrhage is previous disease, and consequent brittleness of the arteries.

The pathological appearance of the brain seldom gives evidence of disease; but extravasated blood is discovered in the ventricles,

or pons varoli, or, to a large amount, in the centrum ovale magnus, or in the sack of the arachnoid, or there may be a copious effusion of serum into the ventricles or beneath the arachnoid, with or without cerebral softening.

That form of apoplexy which is fatal without leaving any traces, is nervous or simple apoplexy; the other, sanguineous apoplexy, or cerebral hemorrhage; the third, serous apoplexy. Apoplexy in parturient women, frequently results from embolism. It is often impossible, during life, to distinguish the different varieties. It usually begins in three forms.

1st. Patient falls suddenly down, deprived of sense and motion; lies like a person in a sleep; face flushed; breathing stertorous; pulse full, not frequent, but below the natural standard; sometimes convulsions, or rigidity, or contraction of the muscles of the limbs, usually on one side.

2d. Sudden pain in the head, pallor, sickness, faintness, often vomiting; frequently the patient falls to the ground in a state of syncope, coma; occasionally, instead of falling, the pain in the head is accompanied by a slight and transient loss of consciousness, then headache, with heavy oppressed feeling in the head, which terminates in forgetfulness, coma, from which recovery is rare. Clot of great size is generally found in the brain.

3d. In this variety we have all the symptoms of cerebral hemorrhage, paralysis of one side, loss of speech, but no loss of consciousness. The paralysis leads to coma, or it may remain or pass off, and the patient recover, or it may pass off, and death occur suddenly in a few hours afterwards, or some days, or it may terminate in another attack of cerebral hemorrhage.

Apoplexy has well-marked characteristics; its duration varies in all cases from a few hours to as many days. Complete or total unconsciousness, pulse generally small at first; but if the patient rallies, strong and full as the sufferer emerges from the shock; it is usually slower than natural, often intermitting; respiration slow, embarrassed, often accompanied with stertor, frothy saliva from the mouth, and in bad cases body covered with a cold clammy sweat; face pale, eyes dull and glassy, with dilatation of one or both pupils, according as pressure is on one or both sides of the brain; teeth firmly clenched, power of deglutition lost or impeded, stertorous breathing, bowels torpid, or motions passed involuntarily; involuntary micturition or retention of urine, until bladder overflows, causing urine to be constantly dripping away. When the patient recovers incompletely, more or less paralysis of the limbs remains.

TREATMENT.—The most profound judgment should be exercised in treatment; if the patient is seen during an attack, we must, if possible, obviate the tendency to death; for if there be coma, the pulse full, hard or thrilling, if the vessels of the neck are engorged, if the face is flushed, turgid, apply ligatures at once over the

extremities in both axillas and groin. If the patient can swallow, veratrum and belladonna, to bring the pulse to 65; cup freely and unsparingly back of the neck, over both clavicles, and apply mustard and oil of capsicum to both limbs, and throw up enemata of flaxseed tea, podophyllum, jalapin and turpentine, per rectum. If there seems a perfect arrest of peristaltic action, and the patient can swallow, try large doses of comp. powder of senna and jalap, or a few drops of Croton oil. This may be given if he cannot swallow—head shaved, and cold applied to it, pounded ice in a bladder; all articles of dress should be speedily removed, as tight collars; head should be well ventilated; patient placed in a cool, well-ventilated apartment. But if the patient is found in a state of syncope, with a feeble, almost imperceptible pulse, cold clammy skin, a sighing respiration, then our course of treatment would be different; we would then give belladonna and capsicum, apply stimulating applications to the extremities, and if the stomach was overloaded, a stimulating emetic of lobelia and capsicum; bleeding never admissible. Treatment should be actively kept up, and if recovery takes place, the greatest possible care to prevent a second attack. Strong remedies, great excitement, either mentally or physically, should be avoided. Simple, nutritious diet, daily bathing, shower bath, active kidneys, free condition of the bowels, and acids, wines for a drink; avoid all fermented liquors.

PROPHYLACTIC TREATMENT.—If there is a predisposition to this disease, the patient should be guarded against bodily exertion, venereal excitement, alcoholic or stimulating drinks, heavy meals, violent mental emotion, exposure to extremes of temperature, constipation, straining at stool, stooping, tight neck-cloths, hot baths; plain diet, plenty of acids, bed-room cool, well ventilated, sleep on straw or hair mattress, exercise in open air, shower bath every morning with cold water. If there is giddiness, epistaxis, headache, throbbing of the arteries, belladonna and aconite, with an active purge; warm pediluvia, containing mustard and capsicum; a vegetable diet, with a judicious use of acids.

ARTERIES.—Arteries are known to be wounded by the flow of blood, its florid color, its profuseness, and its being thrown out in jets corresponding with the impulse of the heart. Nature employs her sublime art for the arrest of arterial hemorrhage in causing contraction of the internal coats within the cellular sheath, the blood coagulating in the sheath of the artery and obstructing it; the faintness induced by the hemorrhage not only checks the current but gives an increased disposition to coagulation. *Primary and secondary vessels invariably require ligation or acupressure; arteries of the third, fourth, &c., order can be treated with torsion, pressure, cold, styptics.* A ligature tied tightly and evenly upon a vessel divides the middle and internal coats, leaving the external or muscular coat inclosed in the knot.

Acupressure consists in inserting a needle underneath the vessels and applying the figure 8 suture over the needle, so as to give the necessary amount of compression.

In seizing an artery and twisting it we produce obliteration or assimilation of all the three coats, converting the arterial tube into an impervious cord. Cold and pressure are only temporary expedients, and adapted to arteries of small size; styptics, with one exception, are best for small vessels. Our best styptic is carbolic acid:

R_x.—Glycerine, ℥iv;
Carbolic acid, ℥i.—*M.*

This is powerful but not cauterant, and will arrest hemorrhage in every case of vessels of the fourth or fifth order. Carbolic acid is the great remedy in wounds, compound fractures, bleeding surfaces, &c., coagulating tissues, and in every case promoting primary union.

ASCITES.—A collection of serous fluid in the abdomen. Ascites proper is dropsy of the peritoneum; and is characterized by increased size of the abdomen, by fluctuation and general dropsy. It is usually dependent upon some disease of the liver or heart, always dangerous and seldom susceptible of cure.

The treatment consists in the administration of hydragogue cathartics, efficient diuretics, and alcoholic vapor baths. Paracentesis abdominis, if performed, should be done two inches below the umbilicus in the median line; it is only palliative—never cures.

ASPHYXIA.—This term is generally used to mean suspended animation, produced by the non-conversion of the venous blood of the lungs into arterial. Owing to the supply of air being cut off, the unchanged venous blood of the pulmonary artery passes into the minute radicles of the pulmonary veins, but their peculiar excitability requiring arterial blood to excite them; more or less stagnation takes place in the pulmonary capillaries, and death frequently occurs from this cause, and from the want of arterial blood, and not owing to the venous blood being distributed through the system and poisoning it.

CAUSES.—Whatever may prevent the renewal of air in the lungs of a healthy person, deficient expansion of the lungs from obstructions, external pressure on the chest, from injury of the pneumogastric nerve, injury of the medulla oblongata, fracture or dislocation of the spine in the cervical portion, paralysis of the nerves of respiration, deficient irritability of the inspiratory muscles from cold, and suspended animation. The air may be prevented from entering the lungs by mechanical causes, as strangulation, submersion, foreign bodies in the air-passages, vitiated atmosphere, deleterious gases.

Asphyxia from Drowning.—The first effect felt by a drowning person is an urgent feeling of anxiety in the chest, the pulse becomes

weak and frequent, he struggles, rises to the surface, the pulse becomes weak, the respiration becomes less, the blood becomes more and more of a venous hue. Narcotic poisons acting thus on the brain produce insensibility, loss of voluntary motion, the surface becomes livid, the heart ceases to beat, the sphincters are relaxed, body sinks to the bottom.

POST-MORTEM APPEARANCES.—Dilated pupils, clenched jaws, semi-contracted fingers and thumbs, paleness of the face, &c.

PROGNOSIS.—Reanimation may be procured from five minutes to three-quarters of an hour after submersion.

Asphyxia from the Poisonous Effects of Vapors, as burning charcoal, is generally due to the poisonous action of carbonic acid gas, or other gases.

The symptoms of asphyxia from carbonic acid gas are, intense throbbing headache, with weight and heat, especially about the occiput, strong pulsations and tightness across the temples, vertigo, increased action of the heart, and often violent palpitation, confusion of ideas, partial failure of memory, nausea, hysteric sobbing.

The treatment consists in removing the patient from the vitiated atmosphere; place in a current of cool air, in a recumbent position; apply bottles of hot water to the feet, or stimulants, cold, to the head.

If the vapor is breathed for some time, the symptoms will be noise in the ears, partial or total loss of vision, disturbances of the senses.

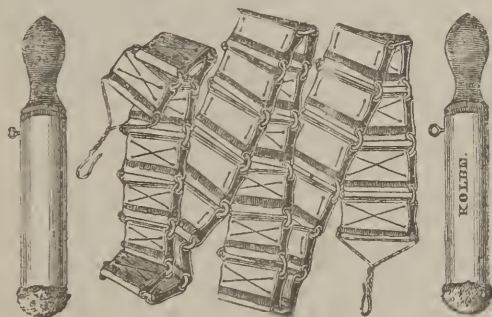
Asphyxia from Strangulation.—The first effect of tightening the cord around the neck is the suspension of respiration, and engorgement of the brain with blood, then sensibility decreases, epileptic convulsions come on, turgidity, suffusion and lividity of the face and upper part of the body, eyes open, features distorted, sphincters relaxed, hands clenched. If the air is not perfectly excluded, the sufferings are prolonged, engorgement of the head and brain greater. The action of the heart becomes more rapid as the death struggle progresses, and remains after the breathing ceases.

Cause of Death in Asphyxia.—The time required to produce asphyxia in an animal varies according to its physiological condition. The insensibility arises from the deficient supply of blood to the heart and brain, and in the blood not receiving its proper quantity of oxygen. When unaërated blood circulates through the body, the action of the heart rapidly falls in strength and frequency till the movements are arrested. Venous blood does not stimulate the heart to contract, hence the cessation of the movement of the ventricles. Venous blood exerts a positively noxious effect upon the heart, and impairs its irritability.

Asphyxia depends upon accumulation of carbonic acid gas in the lungs, the want of oxygen in the blood, the natural stimulus of living tissue.

TREATMENT.—Artificial respiration should at once be commenced,

then the cautious and moderate application of heat; but the heat without oxygen is powerless. Asphyxia depends upon the want of oxygen to the blood, and consequently the most important remedial measure is its speedy restoration, and this can only be effected by artificial respiration. Galvanism has been tried, but this agent cannot stimulate the heart to action, nor can external heat maintain the temperature of the body if the means of supplying oxygen to the blood be neglected. This is the grand point to observe. Having relieved these, then our attention should be directed to special symptoms. The anæsthesia depends on poisoning of the brain, the panting on respiration of carbonic acid gas, the gasping upon poisoning of the spinal centres; hence the importance of carrying patients into fresh air, loosing all the clothes, placing the patient in a comfortable situation. Electricity in the form of a chain battery



wrapped round and round the body of the patient, with one of the electrodes in each hand, I have found a good agent in stimulating a patient recovering from asphyxia. Otherwise the treatment will consist in the cautious administration of stimulants and bland nutriment. rest, and abundance of fresh air.

ASTHMA.—A nervous disease, whose phenomena depends upon tonic contraction of the circular muscular fibres of the bronchial tubes. Paroxysms induced by direct or reflex mechanism, that is to say the stimulus to contraction, may be central, in the medulla oblongata, or it may be in the pulmonary or gastric portion of the pneumogastric, or in some other part of the nervous system, besides the vagus, and being transmitted to the medulla oblongata by incident, is thence reflected by motor filaments.

Asthma has always at the root of it some central nervous irritation, or some peripheral source of it; it may be some latent miasm or skin disease, or some organic affection of the chest. Other causes are merely exciting causes, as moist easterly winds, atmospheric vicissitudes, electricity in the atmosphere, inhalation of irritating substances.

Symptoms.—A fit of asthma is usually preceded either by headache or sleepiness, or by various digestive or other disturbances, as lassitude, pains in the head, back, limbs, loss of appetite, dry hacking cough, depression of spirits. The attack is ushered in suddenly during the night, with a sensation of suffocation or constriction about the chest, urgent distressing dyspnoea, aggravated by the slightest movement, inspirations short and strong, while the expirations are long, labored and wheezing, great and rapid movement of the nostrils, countenance livid and bloated, indicative of great distress and anxiety, inclination to retain the erect posture. There is often an intense struggle for breath, the respiration very difficult, as if from want of air; chest gets distended to the utmost limit, evidently some obstruction to the entrance and exit of air.

On auscultation, no respiratory murmur audible, but vibrating murmurs, loud wheezings or shrill whistlings, pulse small and feeble, eyes staring, anxious countenance, lips purple, temperature of surface falls to 82° F.; but after a while the fatigue causes the skin to pour out a most abundant perspiration, and after a period comes relief. Cough, with expectoration of little pellets of mucus—paroxysm ceases, and the patient sleeps.

During the interval between the attacks, average good health enjoyed, with quiet breathing. The general conformation of a patient afflicted with this disease is as follows: spare habit, nervous temperament, shoulders rounded, countenance indicative of suffering, cheek hollow, voice hoarse, cough. The interval between the attacks varies from twenty-four hours to twelve months. The disease, like all nervous affections, is often periodic, tenacious or capricious. It is more common in men than in women. It is often hereditary. Asthma is usually uncomplicated when it is *idiopathic*; when it is *symptomatic*, it is usually complicated with, or symptomatic of, some disease of the nervous system, or alimentary canal, or heart, or lungs, or skin.

TREATMENT.—If the patient is seen during the paroxysm, give a teaspoonful of the comp. tincture of lobelia every five minutes until relieved; give an enema of the same to *relax bronchial spasm*. If this does not quickly succeed, give a ʒss. bromide potass, and repeat if there is no relief. As soon as relief is experienced, give thirty drops of the following every two hours in a little sweetened water:

R.—Tincture lobelia.
Aqua cinnamon,
Bromide potass, aa ʒi.—*Mix.*

In the interval, improve the general health by tonics, regular mode of living, use of cold shower or sponge bath daily, removal of dyspepsia and other diseases, food easily digested to be taken; then meet the case upon general principles.

Lobelia and bromide potass are probably our best remedies in

asthma, and they are specially indicated when the patient complains of a kind of prickly sensation through the whole system.

Pulsatilla and *belladonna* are good remedies where the disease depends upon derangement of the uterine organs.

Chamomile is excellent where it has followed catarrh.

Depend upon the bromide potass and lobelia, and meet other indications by special remedies.

If the mucous membrane about the fauces is relaxed, resort to an atomized spray of sulphate hydrastin.

If digestion is weak, give cinchona and nitro-muriatic acid, or the following pill:

R_y.—Hydrastin,
Sulphate quinine, aa. gr. xxx;
Ext. nucis vomica, gr. viii.—*Mix*.

Make 25 pills, one thrice daily.

If it is periodic, strike in with the following:

R_y.—Quinine,
Prussiate iron, aa. gr. xii;
Gelsemin, gr. iii.—*Mix*.

Make six powders, one every four hours.

If the cause is disease of the heart, digitalis, cactus, &c. If the cause is obscure, alteratives, with iodide potass, aconite, belladonna, stramonium, inhalation of oxygen gas. If great nervous irritability seems to exist, cypripedin, Indian hemp, &c.

The irritating plaster should be applied constantly to the cervical portion of the spine.

If there is great irritability, a subcutaneous injection of atropia is attended with decided good. Two minims of the officinal liquor atropiæ to each injection.

I have derived excellent results by permitting the patient to sleep on a bed insulated from the earth, so as not to allow his electrical forces to become exhausted—simply placing pieces of glass under the feet, and removing it from the wall.

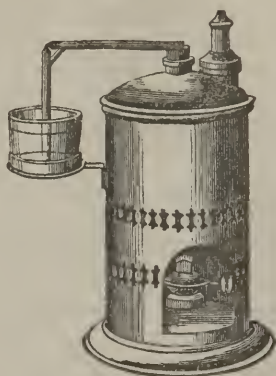
This disease exhibits no pathognomonic physical signs—there is irritation of the nervous centres, often paralysis of the pneumo-gastric nerves, so the treatment indicated by pathology is to overcome spasmodic action, and remove irritation of the nerve centres.

ATOMIZED FLUIDS FOR INHALATION.—A large proportion of drugs may be used in the form of spray. The best instrument for dispersing the finest spray is Richardson's instrument—double hand-ball spray producer.

Atomized medicated fluids may be advantageously used in affections of the lining membrane of the nose, mouth and fauces. They are particularly indicated in tubercular or syphilitic ulcerations of the larynx, phthisis, croup, bronchitis, whooping cough, loss of voice,

&c. During their exhibition, the patient should make deep and long inspirations and expirations. One application a day is usually sufficient; from fifteen to twenty minutes at a sitting.

The dose in the following table is to be added to one ounce of distilled water:



Acidum, tannic,.....grs.	5 to 30	Myricin,.....grs.	10 to 30
Atropia,.....gr.	$\frac{1}{4}$ to $\frac{1}{2}$	Potassa, chlorate,.....grs.	5 to 10
Baptisin,.....grs.	10 to 20	Potassa, bromide,.....grs.	10 to 20
Borax,.....grs.	5 to 20	Potassa, iodide,.....grs.	5 to 20
Cerasein,.....grs.	10 to 30	Potassa, permanganate,....grs.	5 to 20
Digitalis,.....gr.	$\frac{1}{2}$ to 1	Sodium, chloride,.....grs.	10 to 40
Extract belladonna,.....gr.	$\frac{1}{2}$ to 1	Tincture iron,.....min.	5 to 30
Extract conii,.....grs.	5 to 10	Sulphate iron,.....grs.	1 to 5
Extract cannabis ind.,....grs.	1 to 5	Sulphate sanguinarin,grs.	5 to 10
Gelsemin,.....grs.	1 to 2	Tinct. iodine,.....min.	1 to 15
Hydrastin, sulp.,.....grs.	5 to 10	Carbolic acid,.....grs.	1 to 3
Lycopin,.....grs.	10 to 20		

ATROPHY.—A progressive or morbid diminution of the whole body or a part of it, due to a variety of causes.

For example: It is well known that, for the maintenance of health, all parts of the human fabric must have a certain amount of exercise—an indispensable healthy stimulus. If the brain is not exercised, it becomes sluggish, and its faculties impaired; tie up a limb, and it withers and wastes. The same penalty is attached to overwork: use the brain excessively—to a degree beyond that which the system is unable to repair—it will become degenerated.

Degeneration, or atrophy of the body, belongs to certain diseases, as marasmus; special or partial atrophy is more common—*atrophy from overwork and atrophy from innervation*. The defect in both is a want of construction; overworked tissue is altogether different from underworked tissue; in the one no demand is made for constructing power, in overworked tissue the demand is made, but cannot be supplied; in the one the nerve-force, which should guide and govern, the metamorphosis is let sleep, in the other it is used too

much, it is exhausted. No new store of muscular fibre is laid in, and the whole degenerates into inelastic fibre, and finally into a pale, fatty tissue of low vitality.

The power of nerve over muscular fibre is capable of increase by education, so that it may continue to brace it up more and more. But muscular fibres are not capable of proportionate augmentation, and when the nerves have learned to exercise them up to their highest intensity, their full force, they are incapable of further improvement. If the exertion is continued beyond a normal standard, the nerve force expends itself in exciting the continuous functioning of the muscles—destruction exceeds construction. Nerve force is capable of indefinite improvement; but the instrument or limb the nerve supplies cannot be made stronger than it was originally, and when it is over-strained or overworked, it degenerates.

The most common examples of atrophy are where it occurs in one set of muscles from special and partial use.

Muscles affected with atrophy are unnaturally soft, friable, they are pale, bleached in appearance.

Muscular atrophy and local paralysis often follow malarial affections, certain other poisons, as lead, syphilis, mercury.

Lead often leads to atrophy. White lead is absorbed gradually into the system, impregnates first the fluids, which are rendered capable of dissolving it by their saturation with carbonic acid. Lead destroys the red globules; carried to the muscles, removes their red color, renders them incapable of contraction, except under extraordinary nervous influence. This paralysing effect is shown on the involuntary fibres of the intestines; and one reason why it is exhibited on the intestinal fibres first, are, that they are nearest to the portal circulation—the path by which the poison enters. They are weak muscles, and have constant, unintermitting work.

TREATMENT.—Atrophy may be the result of various circumstances—inactivity, inflammation, spasm, defective innervation; in all cases, the treatment must be based upon the pathology. Complete, perfect rest of the affected parts, then improve the general health by all possible means, animal food, milk, hygiene. Aid digestion with bitter tonics. To supply or improve the molecular growth, give the following:

R_x.—Glycerine, ℥iv;
Acid phosphoric, dil. ℥iv.—*M*.

A teaspoonful thrice daily. Give hydrastin and nux vomica, to brace, tone and stimulate mucous membrane to absorption.

Locally, rest, cold douche baths, friction with stimulating liniments, passive exercise, shampooing, electricity. If the cause is malarial, quinine, iron and gelsemin; if due to mercury, iodide potass. and stillingia; if due to lead, the iodide potassium and baths of hydro-sulphurous acid every other day.

Iron, quinine, glycerine, albumen to furnish a basis of molecular growth for renewed muscular fibre.

Atrophy, or muscle-wasting, may be general or local; when it is general, it may be caused by some disease, as a fever; when local, generally some nerve injury, nerve exhaustion, as pressure, bruise, strain, monotonous work. The progress of atrophy is slow, but decided; fibre by fibre, bundle by bundle, and then muscle by muscle, and as this atrophy goes on, fatty degeneration takes its place, and when the fatty degeneration is complete, electro-muscular contractility is gone.

The electric treatment of this disease is, to cause the muscles to contract as strongly and repeatedly as possible; to cause dilatation of the capillaries at one moment and the contraction of the blood-vessels at another, and thus attract to and urge more blood through those tissues, to warm and nourish them; and by the action of Faradisation, the mal-process of animal chemistry be thus broken up, nature aided, the ever ready laws of vitality arranged and maintained. The treatment here is slow, but should be persevered with until the progress of the malady is arrested.

BALANITIS.—Inflammation, with redness and patches of excoriation of the glans penis and the internal surface of the prepuce.

The usual symptoms of balanitis are heat, and itching about the glans; a muco-purulent discharge; on uncovering the glans patches of redness and excoriation are seen, with flakes of curd-like matter. If there be œdema of foreskin, or the orifice of this covering be contracted, retraction may be impossible—*phimosis*. There is usually a necessity for pushing back the foreskin for cleanliness, or there may be a chancre, or an abscess, requiring attention. It may be complicated with bubo, or gonorrhœa, or depend either upon the action of the poison of a soft or hard chancre.

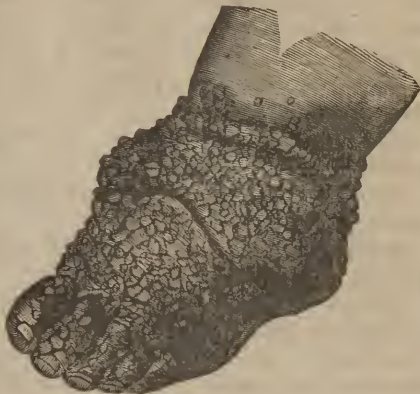
TREATMENT.—The greatest cleanliness is indispensable, washing the parts frequently four times in the twenty-four hours in a wash of permanganate of potass:

R_x.—Permanganate potassa, ℥iii;
Water, ℥iv.—*Mix*.

A teaspoonful to a pint of water will often effect a cure in a rapidly short space of time. The parts may be kept separate by a thin layer of cotton wool, saturated with the same lotion. Some cases are met with where contraction of the preputial orifice is so great, that after having used belladonna, gelsemin, lobelia, that circumcision is indispensable.

With proper management, I have never been obliged to resort to that proceeding, having been successful with the local application of the permanganate and full doses of gelsemin internally to subdue inflammatory action.

BARBADOES LEG.—This form of skin disease is comparatively rare in our country, but is quite prevalent in the West Indies and in some parts of Newfoundland. It is characterized by great swelling and induration of the true skin or derma. It produces marked deformity, often implicating the subjacent areola and adipose tissue. It has a special affinity to the lower extremities, and creates great deformity; the limb often becomes double its normal size, extremely hard, with severe pain, and in appearance resembling the leg of an elephant; it also creates great constitutional disturbance. The disease is peculiar, attacking all classes and sexes, neither contagious nor hereditary.



TREATMENT.—I will describe the treatment of a case of elephantiasis that occurred in my practice, in a lady, aged fifty, a case that resisted all forms of treatment; with the exception of this, the patient enjoyed excellent health, only suffering intensely from the pain. I ordered a saturated solution of sulphite of soda to be applied to the affected part, a cloth wet with it, and over and above oil silk, wet thrice daily.

To relieve pain, I ordered one grain of narceine every night, which acted like a charm. With the view of changing or modifying the character of the affected part, ordered the following:

R_y.—Comp. syr. stillingia, Oss;
Iodide potass., ℥i.—*Mix.*

A small tablespoonful, three times daily. To alternate with $\frac{1}{16}$ of a grain of chloride of platinum. This treatment I continued steady for about three months, with the occasional use of baths, vegetable tonics, good diet, &c.

About this period the discoloration, induration, began to give way in patches; then I continued the sulphite soda solution, but changed the internal treatment to the following:

R_y.—Fluid ext. rumex crispus;
Comp. syr. frostwort, āā, ℥iv;
Tincture kalmia, ℥i;
Iodide potass., ℥i.—*Mix.*

A teaspoonful three times daily, and I substituted chloride of gold and soda for the platinum in the same doses. Continued this treatment pretty steady for two months, at which time I discharged the patient cured. I have used the sulphite of soda with most excellent success in various affections of the skin.

BATHS.—The skin is not only the largest but the most important gland in the body, and how little are its healthy functions aided or attended to in the treatment of disease. Bathing or sponging the entire surface several times daily has a most salutary effect in nearly all disordered conditions of the system. Various temperatures are suited to peculiar conditions. The cold bath is a direct sedative and tonic; the warm bath, a relaxant; the hot bath, a stimulant; besides, we have various forms of medicinal baths of great therapeutic power.

Alkaline bath is made as follows: one pound of carbonate of soda to sixty gallons of water.

Acid bath, two pounds of nitro-muriatic acid to sixty gallons of water.

Antipsoric bath, four ounces of sulphuret of potassium to sixty gallons of water.

Medicated baths, formed of decoction of bitter herbs.

Sulphur bath, an excellent bath in psora, secondary syphilis. Composed of the sulphuret of potassium, or of eight ounces of sulphuret of potassium to two ounces of sulphuric acid, to sixty gallons water.

Tan bath, prepared by boiling a pound of pulverized oak bark in several quarts of water and adding the usual quantity of water. valuable as an astringent bath.

Salt water bath, made by adding salt and iodine to water.

Bitter bath, consisting of a decoction of bitter herbs.

Iodine bath, useful in scrofula and syphilis. Prepared by adding enough of iodine to water so as to slightly stain the skin.

Besides these, there are various other forms of baths; as the Turkish bath, alcoholic vapor bath, steam bath, &c., &c., all useful to meet peculiar indications.

BITES OF RABID ANIMALS.—The preliminary treatment of a bite from a venomous or a rabid animal is nearly the same. Apply a ligature above and below the wounded part, sufficiently tight to prevent absorption. Then either cup or excise the wounded part; then wash the part thoroughly with tepid water; then apply caustic potassa to the wound, taking care to destroy every portion touched by the teeth of the animal; then wash freely with vinegar, after which dry the wound and sprinkle on sulphate of morphia, and over and above all a poultice, as follows:

R_y.—Saturated solution of sulphite of soda, ℥v;
Pulv. elm, q. s.

To make a poultice, to be applied and changed every four hours.

The poison of venomous reptiles and rabid animals has a special affinity to the nervous system of the human subject, so that we have a peculiar train of nervous symptoms, pain in the wounded part radiating in the course of the nerves, also swelling, redness

and lividity; faintness, rapidity and feebleness of the pulse; bilious vomitings; dyspnœa, profuse cold sweats, jaundice, delirium, convulsions.

Now these symptoms are best controlled by stimulants that suspend sensation, as large doses of brandy, or ammonia, or scutellarin; thorough intoxication if no other remedies are at hand. Our best remedies are, ten grains of carbonate of ammonia every hour, with large draughts of an infusion of scull cap. The most common kind of reptile indigenous to our country is the snake, which is found all over; its bite is rarely fatal. The poison apparatus consists of a gland placed by the side of the head, a duct, and a fang or pointed curved tooth, moulded in the form of a tube.

BLOWS AND BRUISES.—In these accidents, the grand point in treatment is perfect rest, the relief of pain, and to prevent ecchymosis or remove it. This is best accomplished by a lotion of arnica, or the root of black bryony in the form of a poultice. An excellent formula is,

R.—Tincture arnica;
Tinc. aconite, àà ʒi;
Aqua distilled, ʒii;
Muriate ammonia, ʒiii.—*Mix.*

Wet a piece of lint, and keep constantly applied to the part.

BLUSHING.—This consists of a sudden reddening of the face and neck, produced by an increased flow of blood into the capillary vessels over the parts where the blush extends. Besides reddening the complexion, it creates a sensible augmentation of heat in these parts.

The small blood-vessels, by which the blood is brought into proximity with the various tissues of the body, are kept in a state of balanced distension between two forces: the one the propulsive power of the heart's action, which fills and distends them; the other, an influence derived from the nervous centres, and acting upon the muscular fibres so as to contract the vessels. The agency of the heart is quite well understood; it resembles the distending of the hose of the fire-engine by working the pump, and driving the water along.

The counteracting force of the nerve-centres is proved by the following experiments: when the sympathetic nerve proceeding to the vessels of the head and face of an animal is cut, there follows congestion of the blood-vessels with augmented heat over the whole surface supplied by the nerve. The ear is seen to become redder; a thermometer inserted in the nostrils shows an increase of temperature, the sign of a greater quantity of blood flowing into the capillaries.

The inference is, that, from the withdrawal of a counterpoise, the force that distends the small blood-vessels, the heart's action,

has an unusual predominance. This nervous influence proceeding from the nerve-centres lodged in the head, acts upon the minute muscular fibres of the small vessels. Hence, there is the action of the brain, upon involuntary muscles, going on in this process, as the heart and intestinal canal, and many organic functions—digestion, nutrition, absorption, &c., are effected by those changes in the cerebral substance that accompany mental states.

Mental excitement has an immediate influence in all those functions; one set of passions, such as fear, tend to derange them, while joy and exhilaration operate favorably on them. Supposing a person receives some melancholy news that occasions him grief; the pain is accompanied with a decrease of cerebral power which abates the stream of nervous influence that balances the heart's action in regulating the distension of the small blood-vessels. Such abatement is made apparent in the redness and heat over the face, and some complexions do not show the increased flow of blood in this way, and all persons are not equally sensitive to the nervous shock that causes it.

BODY. TEMPERATURE OF, IN HEALTH AND DISEASE.—The normal temperature at unexposed parts of the surface is 98.4° , Fahr.; but under certain circumstances it may vary a degree or two above or below this point. These variations are, however, not persistent, for in a few hours, at most twenty-four, the temperature becomes normal. Observations should always be taken every morning and evening at the same hour. I consider that a *persistent* rise above 99.5° , or depression below 97.3° , is a sure sign of disease. Exposure of the body to the air, even in warm weather, lowers the temperature considerably. The temperature is lowered by sleep, after a full meal, the use of alcohol, and slight operations.

There is, in health, a gradual elevation in temperature from the time of rising till about mid-day, but afterwards the temperature seems to have a tendency to fall more or less, though each successive meal, after a certain period, raises it again for a given time.

Violent exercise is a powerful agent in raising for a time the heat of the body, and hot tea has a decided influence in raising temperature.

Vascular sedatives reduce the frequency of the pulse long before they influence the temperature, but after a time the temperature is also slightly depressed.

Indigestion of improper articles of diet in fevers or during convalescence I have seen to have augmented the temperature of the patient by six degrees.

The rule, "that an increase of temperature of one degree above the normal standard corresponds with an increase of ten beats of the pulse per minute," though true in the main, is subject to many exceptions. I have known a pulse of 100° to exist with a temperature of 105.6° in a case of typhoid fever; a pulse of 58° with a

temperature of 103° in a case of jaundice; and a pulse of 72° with a temperature of 104° in a case of tetanus. The sensation conveyed to the applied hand of the observer, is a most fallacious guide. Adopting such an uncertain guide I have known the skin to be objectively of normal warmth with a temperature of 105° , and cool with a temperature of 102° . The use of the thermometer is, therefore, the only reliable method of ascertaining the actual temperature of the body.

The patient must have been in bed well covered up, an hour at least before the temperature is taken. If he has been lying on his side, he must be turned round, in order that the thermometer may be applied in the axilla which has been next the bed. He must be placed in a medium position between the side and back; the bulb of the thermometer passed well up into the top of the axilla; the arm laid across the chest; and especial care should be taken that the instrument is thoroughly surrounded by the soft parts, that no clothes intervene, and that the patient keep his arm in place. The thermometer should be retained *in situ* for at least five minutes.

A very sensitive curved thermometer, and a straight, self-registering instrument, can be obtained from any surgical instrument maker.

The use of the thermometer supplies the physician with a new and most reliable means of forming a correct diagnosis of disease; for it enables him to become familiar with the range of temperature peculiar to each disease, and the general limits to the increase of temperature which are compatible with the favorable termination of the disease.

I have made observations of the temperature with the thermometer daily in upwards of one hundred cases, recording at the same time the state of the pulse, skin, respiration and general symptoms.

These were principally cases of typhus and typhoid fever, but likewise included pneumonia, scarlet fever, acute rheumatism, &c.

From such data I make the following corollaries:

First. That a continued daily temperature of 99° , Fahr., and upwards, indicates an unhealthy condition, and occurs in every case of acute disease.

Second. That the thermometer is of great use, as a means of diagnosis in those cases, which frequently present themselves, of general *malaise*, often accompanied by a history of rigors, loss of sleep, &c.; such symptoms being due either to the commencement of some acute disease, or merely to some gastric or uterine disturbance of a temporary character. In these cases it is often impossible to decide, judging only from the pulse and general symptoms; but if the state of the patient be due to the more serious cause, we shall invariably find an abnormal temperature; but if due to any other, a normal temperature will be often met with, frequently accompanied by a very rapid pulse. I never met with a

case in which the temperature being normal, any acute disease afterwards developed itself.

Third. That the temperature in every disease has a tendency to run a peculiar course, and has a certain range of altitude, a knowledge of which course and range is of great value as an assistance to us in diagnosis and prognosis. The temperature in acute diseases does not seem to be perceptibly affected by the season of the year at which the disease may have occurred. Again, if cases of similar severity at different ages be compared, the height of temperature in any disease does not appear to be influenced by the age of the patient, although the normal is generally reached somewhat earlier in children than in adults.

Fourth. From the last corollary it follows, that the same height of the thermometer attained at one period of any disease is not of the same importance as the same height reached at another time in the same disease. Thus, in typhoid fever, a temperature which has been rising for two or three days, reaches perhaps 104° , between the seventh and fourteenth, without causing any anxiety; whereas, should the same phenomenon occur about the twenty-eighth day, a fatal termination might be expected. And again, the actual altitude attained on a certain day in one disease is not of the same importance to our prognosis as the same height reached on the same day in another disease. Thus, a temperature of 104° , Fahr., in erysipelas, is very common during the first week, and need not give rise to any alarm; but should such occur at the same date in acute rheumatism I should reckon it of much more importance.

Fifth. That although, in all diseases, a high range of temperature generally indicates a severe case, with a slow convalescence, and a long range usually occurs in a mild case, and is followed by a rapid convalescence; yet there is no actual temperature in any disease which necessarily foretells a fatal termination. Thus, I have registered 105° , Fahr., in a severe case of typhus ending favorably, and 106.3° , Fahr., in erysipelas. I consider that an abnormal course of temperature is oftener the precursor of a fatal termination than any universally high range.

Sixth. That in the majority of cases a rise of temperature is contemporary with a rise of pulse, but that on the other hand there appears generally to be but little connection between temperature and frequency of respirations. The alteration in the pulse with a change of temperature is often not a proportional one, and may not take place at all unless the variations of temperature be as much as 2° , Fahr.

Seventh. That where the temperature and pulse together do not coincide with the general symptoms, the two former may generally be relied on as to the actual state.

Eighth. That where the temperature and general symptoms agree together, but do not coincide with the state of the pulse, the two former may generally be relied on as to the actual state. Thus,

in cases of hysteria, and in cases of excitable persons approaching convalescence after fever, we often suddenly get a very high pulse, which is sometimes continuous for days, although the temperature and general symptoms are neither of them adverse.

Ninth. That in those cases where the pulse and general symptoms remain the same, a moderate fall of temperature on one occasion is not to be relied on; but should such a fall continue in a moderate and general manner, for some days, and at such a period when a fall was to have been expected, the temperature may then be depended upon. Severe cases of typhus, towards their close, often give examples of this sort. In those cases, however, in which the pulse continues frequent, and the general symptoms are severe and without improvement, a considerable fall of temperature, 5° or 6° , Fahr., is to be regarded with anxiety, being probably due to some internal hemorrhage, or to the commencement of a state of collapse.

Tenth.—That in those cases in which the pulse and general symptoms continue the same, the one being frequent and the other severe, a continuous rise of temperature for some days, occurring at a period of disease at which some improvements might generally be expected, is usually the precursor of a fatal termination. Thus, in a case of typhoid fever, terminating fatally on the thirty-sixth day, the pulse and general symptoms continued without change until the thirty-fifth day; the former having stood at 92° on the twenty-ninth, remained steady and rather below that frequency until the thirty-fifth day, when it suddenly rose to 124° . The temperature, however, rose continually from the twenty-ninth day, nearly a degree a day, until it stood 5° higher on the thirty-fifth than on the twenty-ninth day, the height registered on the thirty-fifth day being 104° , Fahr.

Eleventh. That although it is possible that the state of the temperature alone in acute disease may, hereafter, prove to be the one safest symptom to rely upon if taken by itself, yet the temperature must be considered merely as an aid, and all other symptoms must be carefully examined into, as it is on comparison with these that its greatest value is to be found.

The pulse and temperature are not uniformly affected by typhoid and typhus fevers. The chief differences are the following:

First. The maximum temperature attained during the course of either disease, is somewhat less in typhoid than in typhus, but a continuous abnormal temperature, is of much longer duration in the former than in the latter.

Second. The defervescence of typhus is regular and continuous, the temperature falling generally about a degree a day, until the normal is reached, whereas, in typhoid the fluctuations from day to day are considerable, and the fall is not a continuous one daily.

Third. There is a great tendency in typhus to attain certain temperatures, and to reach certain points in its course on certain fixed days.

Thus, in the great majority of cases, a temperature of about 104° , Fahr., is met with on the seventh day; in a very large per centage the maximum is reached on the seventh or eighth days; the normal is generally attained, in mild cases, on the twelfth or thirteenth days; and in more severe ones between the fifteenth and eighteenth days. In *typhoid* there is no particular temperature arrived at on any one day; the maximum may be reached any time between the seventh and twenty-first days; and the normal is attained, in mild cases, between the fifteenth and twenty-first days; whilst, in the more severe ones, it may be attained on any day between the twenty-fourth and thirty-fifth.

Fourth. The pulse is generally less frequent in typhoid; and although in both fevers the pulse usually fluctuates with the temperature, the frequency of the pulse in the two, for the same degree of altitude, is different. Thus, with a temperature of 105.5° , Fahr., we generally find an average pulse of about 105° in typhus, but of 95° in typhoid, and so on. Indeed, cases of typhoid have been met with in which the pulse very slightly exceeds the normal throughout; but I have never met with such a case in typhus fever.

Fifth. In typhus the temperature reaches normal two or three days before the pulse, and the general symptoms often continue severe several days after the pulse and temperature are both normal. In these cases, however, if the defervescence has been regular, and has occurred about the usual period, the case will terminate favorably, notwithstanding the often very unfavorable condition of the patient.

Sixth. Relapses of typhoid have occurred in twelve per cent. of all cases, and in these the temperature ran a somewhat similar course as in the former attack, although the normal was attained at an earlier period. Relapses of typhus, with a corresponding recurrence of abnormal temperature, have never been met with, although the number of cases of typhus under observation has been double that of typhoid.

BONES.—Bone is composed of fifty-three parts of the phosphate of lime, ten of carbonate of lime, deposited in a gelatinous network of cartilage, composing about thirty parts in the hundred of bone. The remaining six or seven parts is made up of phosphate of magnesia, soda, muriate of soda, oxide of iron and manganese, fluoride of calcium.

The quantity of lime contained in the bones of the body varies considerably. The fixed salts are less in proportion as the medullary canals and cavities increase. The inorganic constituents increase with age. The phosphate and carbonate of lime gradually increase with age from sixty-three per cent. to sixty-eight.

Bone is extremely liable to take on diseased conditions from constitutional causes; as, the poison of mercury, syphilis, the degenera-

tion of the blood in scrofula, cancer, &c.; and these morbid conditions are mostly at first developed in an *inflammatory form*, and the thickening exostosis, caries, necrosis, being merely the results or terminations of inflammation; while the softening or extreme brittleness is due to a want of proportion of their constituent elements.

BRAIN. INFLAMMATION OF.—This rarely makes its appearance till six or seven days after an accident. Its symptoms and progress are very various—sometimes sudden and violent, quickly terminating in destruction; sometimes slow, insidious, even unsuspected till suddenly manifested by coma and palsy.

There are certain symptoms which are peculiar,—a vague sensation of coldness at first, succeeded by occasional flushes of heat, lassitude, exaltation of the mental faculties; *pain in the head, which is aggravated by heat, motion, and excitement; intolerance of light*, quick pulse, disturbed sleep, nausea, want of appetite, arrested secretions. These symptoms may last forty-eight hours; then there are rigors, followed by burning heat of skin, pulse hard and frequent; headache intolerable and throbbing; light insupportable; sound cannot be borne; eyes suffused; tongue dry, brown; bowels obstinately costive; stomach rejects everything; secretion and excretion arrested because the functions of the brain are impaired. In addition, violent delirium, coma, paralysis, pupils contracted, and if these are not speedily relieved, the third stage follows: then the pulse becomes slow, oppressed, strabismus, low delirium, convulsions, suppression of urine, general palsy, rapidly usher in death. Rigors, followed by squinting, dilated pupil, stertorous breathing, coma, palsy, are indications of an unfavorable termination.

If the inflammation extends to the cortical substance and membranes of the brain, early derangement of the intellectual faculties, irritability, constant agitation; if the medullary substance, chills, headache, convulsions, early lassitude, &c.

The predisposing causes are, plethora, stimulants, excessive exercise; exciting causes are, concussions, blows, fractures, mental emotion, metastasis of rheumatism, gout, erysipelas, suppression of some discharge.

If the membranes and surface of the brain be inflamed, there will be greater pain, a stronger disposition to delirium and convulsions—in inflammation of the cerebral substance, there is an early tendency to coma and palsy.

The medullary substance of the brain is merely the passive servant of the cineritious substance, the conductor of its commands to the muscles—the gray substance presides over intellect, the white, over movements.

Inflammation of the brain may terminate in any of the ordinary results of inflammation, induration, suppuration, abscess. Chronic inflammation of the brain is often very insidious and difficult of

diagnosis, the occurrence of local palsies and a peculiar change in the urine being the two principal points. An analysis of the urine is a positive diagnostic symptom, it possesses a low specific gravity 1010 without albumen, a remarkable diminution of coloring matter, of urea, chlorides, alkaline phosphates, &c.

The diagnosis of inflammation of particular spots of the brain cannot be relied upon by any precise symptoms. Pain in the head, intolerance of light, vomiting, drowsiness, coma, slow then rapid pulse, succeeded by jactitation and convulsions before death, indicate that the inflammation is on the surface, if nausea, vomiting are the earliest symptoms, the inflammation has its origin in cerebral pulp; if the attack begins with convulsions, the inflammation has started from the arachnoid; but, as a rule, symptoms variable and insidious.

TREATMENT.—On the first appearance of the symptoms, the chief point is to control thoroughly and effectually the circulation with appropriate doses of veratrum and ligation of the extremities; then give the following every hour until free evacuations from the bowels are obtained:

R_y.—Podophyllum, grs. vii;
 Jalap, grs. xv;
 Oleum tiglii, gtt. i;
 Bitartrate potassa, ℥i.—*Mix.*

Shave the head, keep cold water applied, so as to cool gently and permanently; dry cup over the shoulders, nape of the neck, and apply a roller eight yards long, saturated with equal parts of mustard and capsicum, of the consistence of cream, to both legs—keep it constantly wet—head and shoulders well elevated.

This preliminary treatment prepares the organism to receive and assimilate remedies, besides, active purging is the remedy from which we invariably derive most satisfactory results. Powerful arterial sedatives, hydragogue cathartics, counter-irritation to remote parts, cold to the head, are our preliminary means.

Then belladonna and aconite may be given with the best results. Belladonna has a specific action upon the cortical substance, the tubercula quadrigemina and the membranes in removing congestion. I have also often found it advantageous to combine it with lobelia. In numerous cases of inflammation of the brain, I have derived the greatest benefit from green lobelia, five grains in pill form, given every two hours—prefer it in pill form, on account of its slower absorption and being less likely to excite nausea. Lobelia is a depressent and sedative, has a positive revulsive effect in all brain engorgements; it diminishes the number of respirations, controls the action of the heart, and abates cerebral inflammation. With these and like means, we would subdue inflammation and, if possible, avoid its terminations; we would establish a cure upon a cautious use of phosphorus, iron, nux vomica, quinine, counter-irritation, alteratives, iodide and bromide potass., change of air, a cautious use of food and stimulants.

Chronic Inflammation may be an independent primary disorder; it may follow acute inflammation.

Its symptoms are much diversified—great mental excitement or depression, hesitation in speech, stammering, stiffness of muscles, slight headache, loss of appetite, constipation, irregularity of pulse, subsequently, symptoms more marked, memory fails, senses impaired, paralysis, general breaking down of the health. Lasts an indefinite period.

In the treatment, special symptoms should be scrupulously met, and an active course of counter-irritation and alteratives resorted to—the secretions, as skin, kidneys and bowels, well stimulated. Irritating plaster should be kept constantly applied to the nape of the neck, and half-drachm doses of bromide potass. given twice daily.

Induration of the Brain is the result of hyperæmia or inflammation, and it causes loss of memory, confusion of thought, derangement of mental powers, loss of appetite, desires, affections, passions, and paralysis.

Softening of the Brain is usually ushered in by severe and persistent pain in the head, attacks of vertigo, diminution of intellectual power, especially the memory, embarrassment in answering questions, depression of spirits, tendency to shed tears, twitching of the limbs with pain or numbness, desire to sleep after meals, hearing and seeing impaired, insensible, dilated pupil. If the result of inflammation, it is termed acute ramollissement (*red softening*), painful cramps, stiffness, contractions; paralysis with spasm not uncommon; permanent contraction of flexor muscles; mind weak, vacillating; intermitting pulse; vomiting; constipation; retention of urine, with uriniferous odor; paralysis of sphincter ani; coma; death. Common after fifty.

The portions of the brain affected are often of the consistence of cream, the corpus callosum, septum lucidum, fornix, and the cerebral substance around the ventricles are most frequently the seat of this softening.

White Softening is the result of cerebral anæmia, the opposite of the inflammatory form. Common in drunkards and aged persons, caused by insufficient supply of blood to the brain, owing to disease of the cerebral arteries, or obstruction by fibrinous clots, or ossification. It is slow, insidious in its progress, failure of memory is early, drowsiness, oedematous condition of the whole body, imperfect articulation, loss of energy, absence of pain. White softening attacks most frequently the gray matter of convolutions at base, optic thalami, corpora striata.

Softening of Cerebellum is attended with fixed pain at the back of the head, amaurosis, hemiplegia or paraplegia, tottering gait, vertigo, convulsive agitation, dullness of hearing, aphonia, eccentricities of conduct.

TUMORS, tubercular deposits, syphilitic^{re} growths, hydatids, are

often found in the brain, and their existence is very obscure; headache, sickness, giddiness, mental depression, confusion, partial paralysis, epileptiform convulsions.

PROGNOSIS.—*Ramollissement* of the brain, if treated by depleting remedies, is invariably fatal. If the coats of the blood-vessels have undergone fatty or earthy degeneration, our prognosis is unfavorable. If the case is obliteration of some particular branch, other vessels may restore and maintain the normal circulation, and a cure may result. But, in the large proportion of cases, recovery never takes place, the palsied limbs are never restored, their temperature falls, they become œdematous, strength declines, and, after an indefinite period, existence terminates.

TREATMENT.—In all these cases, begin treatment by adopting every means to build up the strength of the patient. Diet, above all things, should be generous to a fault,—animal food, wine, tonics, a stimulating plan of treatment. All the symptoms are those of urgent debility, slow pulse, fainting-fits, show anæmic debility, and call for everything that can uphold the patient's strength consistent with the degree of digestive power that he may possess. If there is evident prostration, ammonia, caffeine, xanthoxylin, quinine, calabar bean, are our best remedies. The slow pulse and alarming syncope are invariably relieved by wine and tonics. *Nux vomica* often produces a decided improvement. It may be alternated with phosphorus with excellent results. Iron, quinine, belladonna may be given with success.

BRONCHITIS.—This disease is usually met with in two forms: 1. Common acute bronchitis consists in inflammation confined to the larger subdivisions of the bronchi. 2. Capillary bronchitis consists in inflammation restricted to the minute branches. Both forms being merely an inflammation of the mucous membrane of the bronchial tubes. It may be acute or chronic, affecting one or both lungs throughout, or only a portion of those organs—usually the upper lobes.

In acute bronchitis, marked clearness on percussion on both sides of the chest. In the early stage, before effusion has taken place, dry rales, after effusion, moist rales. The respiratory murmur harsh.

In capillary bronchitis, there is an irregular contraction of the calibre of the minute tubes, the presence of effusion within these tubes, and obstruction to the passage of air to and from the vesicles. This obstruction gives this form its peculiar characteristic type. Bronchial inflammation is always accompanied with lesser or more congestion, effusion, and this gives origin to the peculiar respiration, which is owing to the passage of air through the effused products, and this very fact gives origin to many of the more urgent symptoms, as the difficulty of breathing, the sense of tightness, stricture, oppression, wheezing respiration, severe cough, vertigo,

pain in the head, expectoration of thick, glairy mucus, and, afterwards, of purulent secretion. The frequent weak pulse, foul tongue, headache, lassitude, anxiety.

Inflammation of the larger and medium-sized tubes is attended by less severe symptoms and results than general and capillary bronchitis. The capillary form of bronchitis is not common in adults, but quite so in young and very old. It is usually recognized by its tendency to produce asphyxia, paroxysms of difficulty of breathing, congestion of surface, perpetual cough, general restlessness, increasing prostration and, in fatal cases, somnolence, muttering delirium, coma. During the progress of acute bronchitis, one or more tubes may choke up with mixed phlegm, pulmonary collapse result from a portion of the lung being emptied of air. A frequent result of collapse is vesicular emphysema: a loss of function in a less portion of lung is usually compensated for by increase of volume in non-obstructed portion.

In the early stage of bronchitis, auscultation will detect two dry sounds, *rhoncus* and *sibilus*. Rhoncus belongs to larger bronchi, sibilus denotes that smaller air tubes and vesicles are affected, and is more dangerous. After the inflamed membrane has poured out fluid, the dry are displaced by moist sounds, large and small crepitation. Rhoncus and large crepitation are the dry and moist sounds of larger air passages; sibilus and small crepitation, of the smaller bronchi. No marked alteration of resonance of chest can be detected, except increased resonance in emphysema and dullness of percussion in collapse.

Chronic bronchitis often succeeds an acute attack, sometimes creeps on insidiously, of a low, lingering form, generally indicated by habitual cough, shortness of breath, copious expectoration; aggravated by exposure to cold, or other depressing causes, dyspnoea on the slightest exertion; nocturnal exacerbations of fever.

Percussion affords us but little aid, but by auscultation we detect the moist or mucus rales without difficulty.

Bronchitis is frequently associated with laryngitis; it often follows or accompanies measles, scarlatina, mucous phthisis, mechanical irritation.

TREATMENT.—Confine the patient to the recumbent position, keep the temperature of the room about 70°, atmosphere of the apartment should be kept moist by vapor of acetic acid, then arterial sedatives in sufficient doses to control inflammatory action; for this purpose, combine aconite, gelsemin and veratrum, and give whenever there is a rapid and full pulse, hot skin; repeat every hour till a decided amendment ensues. Then give from five to ten grains of bromide potass. in a teaspoonful of comp. syr. stillingia or glycerine. Dry cup the chest and over the affected part, keep the irritating plaster constantly applied, and respread every morning. Diet, beef tea, arrowroot, mucilaginous drinks.

Other remedies to meet special symptoms, as inhalation of atom-

ized vapors, to act specifically upon the inflamed parts. *Belladonna* and *senega*, to subdue irritation; *nux vomica* and *leptandrin*, to remove constipation; *lobelia* is indicated when there are paroxysms of coughing; wheezing respiration; shortness of breath, agitation, &c.; *rhys tox*, if the symptoms are aggravated by cold; *pulsatilla*, if the cough is dry, tickling, itching; *hepar-sulp.*, if there is any strumous or psoric taint.

Sanguinarin is a most excellent remedy—its action on the mucous membrane of the bronchial tubes is specifically beneficial, as it allays the cough and irritation of the follicular inflammation. The acetous tincture is the best form, it would seem, to give vitality to the suffering part.

These remedies may be used and alternated with alteratives and tonics, so modified and given as to meet peculiar indications.

Chronic Bronchitis.—This form is most common in advanced life.

SYMPTOMS.—In mild forms, merely slight cough, shortness of breath, copious expectoration aggravated by exposure to cold, to damp, bad living. In more aggravated forms, symptoms worse and marked, impaired resonance on percussion posteriorly. On auscultation, feeble vesicular murmur, mingled with rhœcus and sibilus and moist crepitation, dilatation of the bronchi with condensation of the surrounding lung-tissue. Sometimes, an excessive foetid muco-purulent secretion. It is very rarely fatal directly; but may be so indirectly, leading to other diseases.

TREATMENT.—Rectify any pressing indications, and then dry cup the chest, keep the irritating plaster constantly applied, free and constant suppuration. Internally, bromide potass. in tinct. lobelia, or senega, lobelia, ipecac., dulcamara, nitro-muriatic and cinchona, squills, benzoate of ammonia, bronchitis drops, copaiba, guaiacum, glycerine.

BRONCHOCELE.—This disease is characterized by an enlargement of the thyroid gland. It is a true hypertrophy, and is divided into three forms, according as the vascular, glandular or connective tissues are involved.

(1) *Vascular goitre* is common; consisting merely of congestion, engorgement from suppressed menstruation, masturbation, amenorrhœa, &c. This gland is profusely supplied with blood-vessels, and is liable to take on congestion from very slight causes. Vascular goitre often terminates in the rupture of a vessel, and the effused blood may be absorbed or may form the base of a calcareous deposit.

(2) *Glandular goitre* consists in an abnormal development of the glandular capsules distended by a gelatinous fluid.

(3) A transformation in the structure of the thyroid tissues into a calcareous or chalky transformation.

SYMPTOMS.—The whole gland may be swollen, or only the centre or either side of it. Frequently, no inconvenience but the deformity.

In other cases, constitutional symptoms, anæmia, palpitation, mental depression, dyspepsia, difficult respiration and deglutition from pressure of tumor, together with irregularity of uterine function, as scanty menstruation, profuse leucorrhœa.

CAUSE.—Some calcareous or chalky base from which some particular springs or rivers flow—magnesian limestone.

TREATMENT.—If possible, remove the patient from the affected neighborhood. Under all circumstances, the disease is easily influenced by proper remedies, and the use of means over these glandular enlargements is often truly astonishing. Iodine is our best remedy. Its best powers are displayed in causing the absorption of the products of the exudation, and of capsules in process of transformation; either iodide potass., iodide ammonium, iodide iron.

Bromine stands next. Bromide potass. or ammonium, glycerine. To tone and strengthen, good diet, thorough hygiene, salt-water bathing, and establishment of every function of the body, especially the menstrual.

Locally, iodine, muriate of ammonia, phytolacca, pressure.

BUBO.—A swelling of the inguinal glands, consisting either of a simple or of a specific inflammation or enlargement of a lymphatic vessel, or of one of the glands in connection with such vessel. The term *bubo* has, through selection, been applied to inflammation of the inguinal glands.

There are several varieties, according to the cause giving rise to the inflammation.

Simple Sympathetic Bubo may arise from anything that causes lymphatic irritation, as balamites, excess in anything, walking, &c.

Primary Bubo, due to the direct absorption of syphilitic virus. *Indolent bubo* comes on simultaneously with the induration of an infecting chancre. The *virulent* or *inoculable bubo*, due to the absorption of the virus from a soft or phagedenic. The pus of the latter possesses true specific properties.

TREATMENT.—This should be thorough. If seen early, an emetic of comp. powder of lobelia, followed with two or three doses of the comp. powder of senna and jalap; rest in the recumbent position. Arterial sedatives, to perfectly control the circulation. To discuss the induration, try

R_y.—Water, Oss;
Muriate ammonia, ℥iiss;
Tinct. iodine, ℥ii;
Iodide potass., ℥ss.—*Mix*.

Saturate several thicknesses of lint, and keep constantly applied to the swollen gland; internally,

R_y.—Comp. syr. stillingia, Oss;
Iodide potass., ℥ss.—*Mix*.

Teaspoonful every three hours.

If not possible to discutate, apply poultices to hasten suppuration.

R.—Elm;
Lobelia;
Bayberry, āā q. s.

to make a poultice. Change every three hours.

Whenever fluctuation can be detected, evacuation of pus, and afterwards throw into the cavity of the bubo an injection of

R.—Carbolic acid, ℥ii;
Water, ℥i.

Then insert a piece of lint saturated with this carbolic acid lotion. Apply the same externally. Remove in forty-eight hours, and keep the same lotion applied over the cicatrix. Give iron, cinchona, hydrastin, wine-bitters, nourishing diet.

BUCCAL GLANDS.—The mucous follicles seated in the buccal membrane opposite the molar teeth are often the seat of tubercular deposit, and forms quite an impediment to the proper function of the mouth, as their secretion is arrested and the mouth imperfectly lubricated. I have met quite a large number of those cases, and their removal in some cases have been extremely obstinate. The remedies to be depended on are, iodine, bromine, irisin, phytolaccin.

I met a peculiar case last summer that resisted all treatment for a period of four years, and suddenly yielded to the administration of iodine and phosphorus. The case was a young lady, aged twenty, who had been under every variety of treatment for upwards of four years with no benefit. I commenced treatment with

R.—Comp. syr. stillingia, Oss;
Tinct. kalmia;
Tinct. iris versicolor, āā, ℥i;
Iodide potassa, ℥ss.—*Mix.*

A tablespoonful every three hours. Locally,

R.—Unguentum phytolacca, ℥i;
Muriate ammonia, ℥iii;
Iodide potass., ℥iv.—*Mix.*

Spread on leather and keep constantly applied. Other remedies of a similar character were tried but with no success. Having heard of the great utility of phosphorus in tuberculosis, I gave R.—Acidum phosphoricum dilutum, gtt. xx., every four hours, and in alternation five drops of the tincture of iodine in a little simple syrup. Under these two remedies, in five weeks the case was perfectly cured and remains so at this date. I inculcated from the start the best diet, most thorough hygiene, warm clothing, fresh air, &c.

BURNS.—The degree of heat that can be borne by the human body without injury, depends a good deal on the conducting medium through which it is applied and upon the sensibility of the patient. The application of a heated body will produce one of the following effects: either a mere *redness*, or *vesication* or *death of the part*.

These effects will produce the following symptoms:—Shock to the nervous system so great as to produce in some cases complete collapse, syncope, pallor, coldness of surface and extremities, shiverings, rapidity and feebleness of pulse. In some cases, imperfect reaction with fever, or great congestion, or inflammation of lungs, brain or bowels, or hectic and typhoid fever from tedious cicatrization, exhausting discharges.

PROGNOSIS.—The danger of burns may be estimated by their extent, severity, situation, age, constitution, temperament. Burns in the young or the old, in the strumous or sanguine temperament, are always more dangerous than otherwise. The periods of danger of wounds of a superficial character are in the first forty-eight hours from collapse or imperfect reaction; the next period is during the sympathetic fever which follows. The danger of deep-seated burns is usually after the ninth or tenth day, during the suppurative stage. In deep-seated burns there is fear of deformity from contraction of cicatrices.

The morbid appearances are, congestion, serous effusion on the surface of the brain, lungs, bowels, and this exudation is due to the cessation of the exhalant functions of the skin.

TREATMENT.—The correct indications of treatment of all burns is to carefully exclude the atmospheric air from the burnt part; for this purpose, the first application should be a stimulant, and, after the first four or five days, an emollient, and, lastly, mild astringents to promote healing.

Now, the profession have adopted an endless variety of formulæ for this purpose, but none, so far, have been recommended that fulfills all the indications. The remedy that I suggest is the following:

R_x.—Carbolic acid, ℥i;
Olive oil, ℥vi.—*Mix.*

This remedy is the most wonderful in the *Materia Medica* in the rapid cure of burns. Common lint or cotton-wool saturated with the above and placed over the entire burnt surface, and all covered over with oiled silk, will relieve the most intense pain of a burn in a few minutes; inflammation and suppuration in the part will be perfectly and thoroughly aborted—in other words, the burnt surface is healed at once, a cicatrix formed, and the part restored to its legitimate function. The dressing should be retained for ten or twelve days. It is never necessary to change. I have cured so many cases by this simple treatment, that I bring this before the

profession as the remedy that is best deserving of their consideration. Constitutional treatment is very important if there is collapse. Stimulants to overcome it, taking care not to push it too far, lest we increase the congestion in the head or chest, and not abandon them too soon, lest the prostration return. After reaction is well established, a dose of neutralizing mixture or an enema should be given if there is constipation, if not, let the bowels alone. Control any febrile condition with aconite in an infusion of asclepias. Any congestion of the head or chest must be promptly removed by

R_y.—Podophyllin, grs. ii;
 Bitartrate potass., ℥iii;
 Nitrate potassa, grs. xxx;
 Digitalin, gr. i.—*Mix.*

Make six powders—one morning and night. Meet convulsions with lobelia, belladonna and bromide potass. in appropriate doses. Pain should be relieved by hyoscyamin in full doses. Opium increases congestion, and should on no account be given. Convalescence, under the treatment by carbolic acid, is rapid, provided it is at first applied; there is never suppuration to exhaust the patient, consequently, seldom an indication for tonics; for in the most feeble patients suffering from extensive burns, we have instant subsidence of pain, inflammation, withering of the bullæ, complete healing of the scalded part, without the slightest suppuration in a patient of the most feeble habit.

BURSAL SWELLINGS.—Bursal, or those small sacs situate about the joints, particularly the larger ones of the lower extremity, are prone, from irritation, to secrete an abnormal quantity of fluid. I have found the following formula very valuable:

R_y.—Unguentum stramonium, ℥i;
 Iodide potass., ℥iii;
 Iodine, grs. xxx.—*Mix.*

Spread on leather and keep constantly applied.

R_y.—Unguentum belladonna, ℥i;
 Iodide potass., ℥iv;
 Veratrin, grs. xxx.—*Mix.*

Then insert a piece of lint saturated with carbolic acid lotion. Apply the same externally. Remove in forty-eight hours, and keep the same lotion applied over the cicatrix. Give iron, cinchona, hydrastin, wine-bitters, nourishing diet.

CANCER.—Carcinoma is the local manifestation of a specific disease of the blood—a disease of deficient or degenerated vitality in which the blood corpuscles, instead of being of their peculiar round shape, assume every variety of abnormal shape and size; as, oblong, obtuse, heart-shaped, spindle-shaped, &c.; and these morbid cells are not only elaborated, but increase in the blood as vitality is lessened or when some accidental irritation is produced. This may cause a determination of them to some gland or spot, and their aggregation in sufficient number will form a morbid growth or tumor, or deposit, having incorporated within them those peculiar morbid materials.

Constitutional causes lead to the development of the cancerous elements in the blood, by deranging the functions which preserve the blood in a healthy state; hence, cancers are found most common and of quickest growth in the least vitalized bodies, in the least lively parts, in those impaired by previous disease or vicious habits.

Local causes are those that attract to or separate morbid material and transform it into cancerous deposit, which may replace or usurp the proper textures, or become incorporated with them. The peculiar cancer cell must first exist in the blood before local irritation can produce the cancer.

As to its being a blood disease, dependent upon an impaired condition of the fountains of life, the brain and spinal cord, a microscopic examination of the blood emphatically demonstrates; so that the removal of its local manifestation never effects a cure, but an aggregation of cells will return at that part or in some other. If this primary disease has existed some time, secondary deposits are very apt to be formed in the lymphatics, lungs, liver or spleen.

There is, properly speaking, but one species of cancer; but numerous varieties and subvarieties have been described to the great annoyance of practitioners, all being but modifications of one grand blood disease.

A good distinction for all practical purposes is the following:

Acute, or medullary, or brain cancer, characterized by an excess of cells.

Chronic, or scirrhus, or hard cancer, in which the fibrous tissue predominates.

Other varieties are but modifications of the above, named from their fancied resemblance to some substance, or from the incorporation of certain substances in their structure; as,

Hæmatoid cancer, or fungus hæmatodes; in which there is an excess of blood, free or inclosed in blood-vessels.

Melanosis; in which there is an excess of cells, with a superabundance of black pigment in the cells.

Osteoid cancer; in which the osseous tissue predominates.

Cancroid, or epithelial cancer; containing an excess of epithelial cells. Common where skin and mucous membranes meet.

Lardaceous; in which fat globules are infiltrated throughout the morbid deposit.

Colloid, or gelatiniform; marked by an excess of blastema.

Through an impaired vitality, we find an imperfect elaboration of the blood, the corpuscles of which are altered in shape and consistence, and rendered capable of passing out of the ordinary circulation, and forming exudations or deposits—infiltrations. When a cancerous deposit or infiltration takes place in any part, it is usually attended with more or less pain of a shooting character; and, after a variable length of time, the skin covering it becomes discolored, and, at length, ulcerated; the pain, which was shooting at first, becomes lancinating, then dead, gnawing, the ulcerated surface is irregular in appearance, presents an unequal surface; discharges a sanious, fœtid matter, and the edges of the sore are thick, indurated, exquisitely painful, either inverted or everted, or exhibiting a serrated appearance.

SYMPTOMS.—The characteristic symptoms are, a separable tumor or infiltration, which alters or changes the original texture of the organ or part in which it is seated, with a tendency to invade the surrounding tissue and to extend to the nearest lymphatics, and ultimately involves the whole system. Pain is very characteristic, first dull, aching, lancinating, with a tendency to softening and disintegration of the growth, and, subsequently, ulceration of the skin or mucous membrane, revealing a foul, excavated, spreading ulcer, with a sanious, fœtid discharge. Occasional hemorrhages.

All the functions of the body are imperfectly performed, the stools are clay-colored, the bowels constipated, indicating an arrest or imperfect action of the liver; the urine is scanty, high-colored; the skin dry and harsh, exhibiting an almost suspension of the kidneys and skin; dyspepsia and febrile disturbance, progressive debility, emaciation, nausea, vomiting, diarrhœa, complete prostration, exhaustion, death.

The cancerous cachexia, dirty-yellow hue of skin, contracted features, general wasting, loss of strength and energy, mental irritability. Cancerous growths abound in the peculiar abnormal cells, aggregation of cells and blood-vessels.

Cancer cells, besides the peculiarity of shape, have one or more nuclei of large size, and one or two nucleoli. They bear a strong resemblance to secreting gland cells. A degeneration of the cells makes the so-called cancer-juice a creamy or viscid fluid. The basis or ground-work of nearly all cancerous exudations is in fibrous tissue or gland.

A microscopical examination of the tumor and of the blood of the patient is an excellent aid to diagnosis.

The primary cause is, some perverted or depraved or depressed condition of the brain and spinal cord, caused or engendered by some of the vices of civilization, as masturbation, venereal excesses,

&c. It is a disease peculiar to man in a civilized condition—never appearing among savages.

TREATMENT.—The grand indications of treatment are, to build up the centres of life, *the nervous system*, to maintain the constitutional powers by tonics, nourishing food, pure air, warm clothing, stimulating the secretions, kidneys, liver and skin, improving the blood, providing healthy and invigorating mental occupation, allaying pain, neutralizing and removing offensive and acrid discharges, and removing the tumor or infiltration.

In all cases of cancerous disease my success has been very great, and my mode of treatment, simple, salutary and curative.

The following is a synopsis of my treatment:

Every night I order one pill of the following to be taken:

R_x.—Podophyllin, grs. v;
 Leptandrin, grs. xx;
 Hydrastin, grs. xxx;
 Extract nux vom., grs. x.—*Mix.*

Make 20 pills.

This rectifies the abnormal condition of the liver and bowels, stimulates a lethargetic stomach. Every second day I have the patient lie completely submerged in the following bath for at least half or three-quarters of an hour:

R_y.—Nitro-muriatic acid, two pounds;
 Water, sixty gallons.—*Mix.*

This is alterative, tonic, cholagogue, vivifying, and, under its use, the sallow, cachectic aspect quickly gives way, rapid, decided improvement takes place in every case. Keep the skin well covered with flannel, and abundance of pure air.

In every case, I give the terchloride of carbon internally, and often apply it locally. The dose internally that I usually give is from five to eight drops, in a tablespoonful of water, three times a day. I continue this remedy steadily and perseveringly all through each particular case. The effect is sedative, stimulant, recuperative; healthy action established, secretion stimulated, red blood augmented, as a consequence, more vitality, more life.

TO IMPROVE THE BLOOD, I keep the patient alternately under the influence of one or other of the following remedies, or a combination of some of them:

Comp. syr. stillingia, frostwort, yellow dock, irisin, ampelopsin, sarsaparilla, alnuin, phytolacca, gold, platinum, chlorine, glycerine and phosphorus, cinchona, hydrastin, mineral acids, iron, iodine, quinine, salacin, sulphites of soda and lime, permanganate and chlorate of potassa, pepsin.

DIET.—Animal food, milk, cream, raw eggs, oysters, wine, brandy, and, in addition to the nitro-muriatic acid baths, a salt, or a sulphur, or iodine bath may be advantageously used at least twice a week.

The strength of the iodine bath should be just strong enough to tint or stain the skin.

TO RELIEVE PAIN, give the patient one grain of narcaceine every night one hour before bed-time. If unable to procure that, our choice would be either conium, or henbane, or Indian hemp. Lupulin, opium, or morphia should be used only by subcutaneous injection.

TO CHECK OR DISCUSS LOCAL GROWTH, if the tumor is small, I use:

R_y.—Unguentum belladonna, ℥ii;
Muriate ammonia, ℥v;
Phytolacin, ℥ii;
Iodide potass., ℥ss.—*Mix.*

Spread on leather twice daily, and keep constantly applied with firm support or iodide of lead ointment.

THE REMOVAL OF THE GROWTH.—The treatment of cancer locally should be performed with great caution. We must not stimulate too much, lest we irritate or aggravate the disease; and if we are unable to discuss them, they should be removed by the proper remedies, after six weeks of active preliminary constitutional treatment. I usually employ two caustics for the removal of these morbid growths.

(1) Put the patient under the influence of anæsthetics, then carefully map out the part to be removed, then apply pure nitric acid for a few minutes, until the skin assumes a tawny yellow aspect—thoroughly destroy it; then apply the following paste:

R_y.—Hydrastin, ℥iv;
Chloride zinc, ℥ii;
Flour, ℥ii;
Stramonium ointment, ℥ss.—*Mix.*

Spread on a piece of fine leather and apply to the part. On removing this dressing in twenty-four hours, a yellow, hard and dry eschar will be found to have formed. Throughout the entire extent of this eschar, vertical incisions should be made about half an inch apart, and into each should be inserted a thin strip of lint saturated with the same paste, and over and above all, a dressing of the same. The incisions should be repeated daily, and this is continued daily until the paste has percolated the entire mass of the tumor. The time required for the separation of the slough varies with the size of the tumor. The wound, after the eschar drops out, takes on a clean and healthy aspect, free even from the secretion of pus. The constitutional irritation which follows the operation is but slight; the dressing of the wound, after the removal of the slough, consists in the application of cotton-wool freely spread with stramonium ointment.

Another method is the application of the inspissated extract of sheep-sorrel spread on leather the entire size of the tumor, respread

every morning, and kept applied till it drops out entire, following with the stramonium ointment, or with a lotion of the terchloride of carbon, one drachm to a pint of water. It relieves the pain immediately, and brings about a healthy action in the part.

I have tried every mode of treatment: free incision, removal by caustic potass., Vienna paste, chloride of zinc, sanguinarin, chloride, bromide, supersulphate zinc, but with poor success.

A method of destruction introduced lately, namely, injecting the tumor with acetic acid, and allowing it to slough out. In some few cases, where there are no adhesions, and where constitutional treatment is judiciously pursued, this is successful; but in the majority of cases, it gives rise to tremendous sloughing.

The local use of belladonna in open sloughing cancer is of great benefit. Charcoal and yeast poultice, elm poultice with ley, carrot poultice, cranberry poultice, logwood poultice, lotions of permanganate and chlorate potassa, lotions iodide potass., citric acid lotion.

CARDIAC DISEASE.—The heart and its appendages are subject to various diseases, which have been described under different names. Being a muscular organ, it is exceedingly liable to take on all forms of disease common to muscular fibre. Perhaps the most common is atrophy, where the entire muscular tissue wastes and dwindles in every fibre; where the muscular fibre is replaced or superseded by fat.

SIMPLE ATROPHY occurs in connection with some diseases, as cancer, tuberculosis, diabetes. The whole heart diminishes in size, the area of dullness on percussion is less, the heart diminishes in weight from nine to four ounces; muscular fibre pale and soft.

FATTY DEGENERATION OF THE HEART is invariably a result of atrophy, and also occurs in conjunction with fatty diseases of the liver, kidney, cornea, &c.

The symptoms of both forms are, feeble action of the heart, feeble contraction of the organ, slow pulse—45 or 50—general debility, transient attacks of giddiness and faintness, great nervous exhaustion, general loss of tone, heart's sounds weak, feeble; difficulty of breathing, symptoms of angina pectoris may be present, common in males over forty, frequently causes sudden death from rupture.

FATTY GROWTHS or deposits are, under certain circumstances, often met with upon the heart or among its muscular fibres. We find it alone, or in conjunction with general obesity, or in association with fatty degeneration.

It may give rise to all the features of an enlarged heart impeded in the performance of its functions; pulse quickened, but its force diminished.

The great increase of diseases of the heart is no doubt owing to the greater intensity of the mental emotions and passions, for

mental anxiety or excitement makes the greatest depredation on the function and structure of the heart.

TREATMENT.—In simple atrophy, fatty degeneration, fatty deposit, the selection of a proper diet is a most important consideration, although this restriction is seldom effectual in either diminishing or preventing the superabundant fat. Farinaceous diet, the use of acid wines, or vinegar, has the property of removing fat, or preventing its accumulation. Attention to the digestive organs, pure air, early hours, gentle exercise, avoidance of excitement, tepid salt baths, and such remedies as nitro-muriatic acid, in a bitter decoction; asparagin, with bromide potass.; iodide potass., in the comp. fluid ext. stillingia, are probably our best remedies.

Cardiac Dilatation.—Hypertrophy of the heart, with dilatation, known as active dilatation, where the expansion predominates over the hypertrophy; simple dilatation, where thickness of the walls is normal; passive dilatation, where the walls are thinned. Conditions often combined with mal-nutrition of the heart and fatty degeneration of muscular fibres.

It often arises from exhausting disease, but more frequently it depends upon a disturbed circulation, affecting the brain, which causes headache, giddiness, irritability, irregular circulation, and from which cause one or other chamber of the heart may become thicker, more dilated than natural, or from some mechanical obstacle, which prevents the free exit of the blood.

THE PROMINENT SYMPTOMS are, a small weak pulse, coldness of the extremities, giddiness, deranged digestion, attacks of fainting, paroxysms of asthma, restless nights, palpitation; there may be anasarca, followed by ascites.

The chief indications of treatment are, to rectify any abnormal condition, and improve the general well being of the patient. Aid digestion with tonics, as hydrastin and cinchona; stimulate the skin with baths medicated with hydrochloric acid; remove the existing hypertrophy with comp. syr. stillingia, with bromide or iodide potass., veratrum, prunin; impart tone to the muscular fibre of the heart with hydrastis can., myrica cerif., infusion or concentrated principle; or with chloride of iron, or tinct. iron and cinchona, cactus, asparagin, iron chloride, nux vomica, which have a tonic power over muscular fibre.

Cardiac Functional Derangement.—Functional disease of the heart closely resembles organic disease of that organ. It mostly occurs in the various phases of hysteria, as uterine or ovarian irritation, spinal irritation, anæmia, chlorosis, &c. It is often a symptom of nervous exhaustion, mental anxiety, fatigue, excesses. Sometimes due to a great variety of causes, as dyspepsia, disease of the liver, lungs or blood; the metastasis of gout or rheumatism; to the use of tea, tobacco, &c. Defective appetite, general weakness and indisposition to exertion, the mind irritable, sleep prevented by excessive action of the heart, are characteristics.

The most prominent symptoms are, an irregularity of the pulse, fluttering palpitation, difficulty of breathing, mental depression, dyspepsia, flatulency, acid eructations, œdema over the region of the heart, pain in the præcordial region; abnormal sounds, general disturbed circulation, inability to lie on the affected side, owing to tenderness; occasional attacks of giddiness, fainting fits, headache, noises in the ears, flushing of the face, violent pulsations in aorta, globus hystericus, gastric, cerebral and cardiac irritation, constitute a strong chain of diseased action.

The treatment of all those cases is, when it is dependent on weakness, to increase the vigor of the constitution by the best of nourishment,; tonic baths, proper exercise, and the administration of tonics, Chalybeates. In chlorosis, the different preparations of iron, phosphorus, nux vomica, hydrastis. In all cases the concomitant derangement should be well studied.

SYMPTOMS ALLAYED AND THEIR CAUSE REMOVED.—For example, if connected with gout or rheumatism, alkalies, as carbonate of lithia, acetate of potassa, colchicum and quinine, macrotin and veratrum; if associated with uterine congestion, regulated secretions, daily warm hip bath, alteratives, bromide potass., counter-irritation; if there be dyspepsia, bitter tonics, nux vomica, bismuth, hydrastin, nitro-muriatic acid, cinchona, gentian, &c.; if their be constipation, nux vomica, leptandrin, leontodin; if there be spinal irritation, the application of Brown's acupuncture to the entire length of the spine once a week, bromide potass. and stramonium, valerian, phosphorus, ergot.

In all forms of functional disturbance of the heart, the greatest attention should be paid to diet; let it be nourishing and easily digested; tobacco and tea should be rigidly forbidden; acids and saccharine substances always injurious; moderate exercise in open air, salt water bathing, agreeable associations always salutary.

Cardiac Hypertrophy.—The area of dullness on percussion over the region of the heart in health is four square inches, or the size of the closed fist of the patient. Its weight, in a male adult of average dimensions, is $9\frac{1}{2}$ ounces; in the female, $8\frac{1}{2}$ ounces. After fifty years of age it weighs more; the thickness of its walls and ventricles having increased.

Hypertrophy may exist from a mere thickening of the muscular walls, without any diminution in the size of the chambers, and this is termed *simple hypertrophy*. If the walls are thickened, and the chamber enlarged, it is termed hypertrophy with dilatation, or eccentric hypertrophy. If the thickness of the walls is accompanied with diminution of size of cavity, then it is called concentric atrophy.

Hypertrophy in any form renders an impediment to the free flow of blood from the organ. The most common form is hypertrophy of left ventricle, with valvular disease. Hypertrophy of the right

ventricle, generally due to some chronic or organic disease of the lungs, obstructing the circulation.

The symptoms will depend on the extent of the hypertrophy, an increased area of dullness, palpitations, difficulty of breathing, of walking quickly, uneasiness or pain about cardiac region, headache, vertigo, systolic sound heard less distinctly than in health, extent of pulsation increased.

The best treatment is to keep the circulation tranquil with veratrum, aconite and digitalis; if there is debility, cinchona, hydrastin, phosphorus, nitro-muriatic acid. Remedies to effect a cure, bromide potass., asparagin, cerasein, hydrocyanic acid, iodide potass., gold, counter-irritation.

Cardiac Rupture.—Rupture of the heart may occur spontaneously, independent of any disease; sometimes caused by external violence. Laceration of walls of ventricles most common. Rupture of the valves often a result of endocarditis; laceration of muscular walls symptomatic of fatty degeneration, or of rupture of aneurism in ventricular wall.

If death does not result instantly, there is great difficulty of breathing, intense prostration, syncope, convulsions. In such cases the physician may prescribe stimulants and tonics, although without hope or avail, because death must ensue.

Cardiac Valvular Disease.—The great frequency and fatal nature of valvular disease of the heart should never be lost sight of by the physician. The heart is a single organ, with the one function of propelling the blood, and consisting of a number of parts naturally dependent on each other. If the left ventricular valves are injured, the right cannot do their work. No relief can be afforded to a weak or failing part by another taking its place. No rest for the purpose of repair; no reserve function here. A patient may enjoy a tolerable degree of health, even if one of his kidneys or lungs be impaired, but no disease or injury of the heart can be compensated for in any way whatever.

The great causes of diseased conditions of the heart are inflammatory attacks, rheumatism, gout, insufficient food, mental anxiety, over-work, drinking alcoholic liquors, tobacco, violent exercise, &c.

Nearly all the alterations in the internal lining membrane of the heart result from inflammation, which gives rise to a deposit of lymph upon or beneath the serous membranes. The valves lose their delicacy and transparency, become thick, puckered and adherent to each other. Independently of inflammatory effusion, the valves often become covered with exudations, or vegetations, or excrescences; they often become ossified, or become the seat of calcareous deposits.

The effects of such a condition are, either to contract and narrow the orifice, so as to obstruct the passage of the blood—*valvular obstruction*; or, by thickening and shortening the valves, to make the orifices more or less patent, and thus permit regurgitation of

blood—valvular insufficiency. Regurgitation, valvular obstruction, or valvular insufficiency, often co-exist.

DIAGNOSIS.—Both sounds of the heart are accompanied by bellows-murmur; this murmur may be harsh, or rough, or cooing, or whistling, or musical.

A murmur is caused by some obstruction to the free flow of blood.

Diastole is a dilatation of the heart and arteries, when the blood enters their cavities.

Systole is a contraction, to send forth blood.

The following points are most excellent to detect aortic and mitral disease:

Bruit or Murmur.—If systolic and loudest at base—*aortic obstruction*.

Bruit or Murmur.—If systolic and loudest at apex—*mitral insufficiency*.

Bruit or Murmur.—If diastolic and loudest at base—*aortic insufficiency*.

Bruit or Murmur.—If diastolic and loudest at apex—*mitral obstruction*.

The *pulse*, if regular, is full and strong, or jerking in *aortic disease*.

The *pulse* is irregular, intermittent, unequal, soft, small in *mitral disease*.

SYMPTOMS.—In valvular disease, difficulty of breathing, increased by exertion. Palpitation and irregular action of the heart, with abnormal sounds or murmurs, detectable by auscultation—alteration in the pulse; soft and irregular in mitral disease; hard and jerking, but regular, in aortic—congestion of lungs, bronchitis, pneumonia, pulmonary hemorrhage; also, hemorrhage from nose, bronchi and stomach. Œdema of lower extremities, arms, face, hydrothorax, ascites, headache, noises in the ears, vertigo, syncope, cerebral congestion and hemorrhage, most urgent in aortic disease. Broken rest, startings during sleep, frightful dreams, enlargement of liver and spleen, disordered digestion, appearance of face peculiar, face puffed, cheeks flushed and of a purple hue, lips congested and blue, fingers blue, eyes bright.

As the disease becomes aggravated, patient becomes weak, nervous, suffers from over-exertion, mental emotion, food, exposure, &c., and death usually results from some of the secondary affections.

The chief indications of treatment are, to control the inordinate action of the heart, to ward off or relieve the results of cardiac disease, and to impart tone and strength to the heart.

If there is hydrothorax, give the following: *R.*—Podophyllum, grs. xxx; nitrate potassæ, ʒi; bitartrate potassæ, ʒss. Mix and make ten powders; one morning and night. In addition, a teaspoonful of cream of tartar in a wineglassful of water, to which

add eight drops of tincture of digitalis, three times daily; alkaline or vapor baths at least once daily, aided with the best blood elaborating diet. If the above does not succeed in a few days, I would substitute one-twelfth grain of elaterin for the podophyllum, and for the digitalis the following: *R.*—Fluid extract buchu, uva ursi, hydrangea, eupurpurin, āā ʒi; veratrum, tincture, ʒii; spts. nit. dulc., ʒss. *Mix.* A teaspoonful every three hours. To act as a tonic to the heart, muriate tincture ferri, cinchona, hydrastin, aconite, phosphorus, quinine, best of diet, thorough hygiene. Hydrocyanic acid has a beneficial effect; its action is specific upon the pneumogastric nerve.

Carditis.—Inflammation of the fleshy substance of the heart is frequently met with, and is indicated by acute pain in the region of the heart, increased by motion; sense of fullness and oppression in the chest; palpitation from the slightest exertion; mental excitement; rapid, difficult and irregular respiration; short, dry, spasmodic cough; rapid, small, intermittent pulse; great anxiety, dread of suffocation; absence of the normal murmur; febrile condition; some parts being cold and others warm; countenance anxious; patient desponding, irritable, restless, alarming palpitation, fainting on rising up, &c.

CAUSES.—Grief, joy, anxiety, violent muscular efforts, injuries, metastasis of rheumatism, gout, &c.

In the treatment, I give five-drop doses of the tincture of aconite in a tablespoonful of water, till profuse perspiration breaks out, and the symptoms become ameliorated. Counter-irritation over the region of the heart, perfect rest in the recumbent position. If the symptoms do not yield, alternate with bryonia and veratrum, and keep up active counter-irritation over the heart and extremities.

Pericarditis is extremely liable to come on during an attack of rheumatism, and percussion and auscultation are our only guides; with them we can trace the progress of the disease through the stages of commencing exudation with friction, gradual pyriform enlargement, with or without friction, absorption and disappearance of the serum with returning friction and adhesion.

Functional symptoms may induce us to suspect, but not positively affirm, the existence of pericarditis; they are very variable and dependent on the general susceptibility of the patient. Even the local pain, dyspnœa, are often absent, and the disease latent from first to last.

The treatment should be arterial sedatives to effectually control the circulation, fomentations over the heart, quietude of mind and body, and alkaline remedies to neutralize any acidity of the blood, alternated with macrotys, colchicum, quinine, and diaphoretics to aid elimination.

Our special remedies in cardiac disease are the following:

Digitalis, on account of its specific power over the sympathetic

nerve and cardiac plexus, is especially adapted to those cases of inflammation caused by grief, or mental anxiety.

Aconite is indicated if the contractions of the heart are irritable, rapid, vigorous, tightness, constriction, and where the breathing is short and labored; where the action of the heart is irregular and exalted.

Veratrum is a powerful therapeutic agent; it controls the action of the heart and arterial system, lowers the force and frequency of the pulse, depresses the action of the vascular system generally—a positive sedative.

Bryonia is a valuable remedy in all inflammatory conditions of the heart.

Arnica, if caused by wounds and contusions.

Kalmia has also a remarkable power over the circulation, and is valuable in cases complicated with rheumatism.

Macrotys and cactus, where there is debility and irregular action of the heart.

Asparagin, bromide potassa, nitrate of amyl, where decided sedatives are demanded in palpitation.

Cannabis, pulsatilla, iodine, gold, when cardiac inflammation has arisen from some constitutional causes.

Lobelia is a powerful agent to control the heart and arterial system.

CARIES.—One of the results or terminations of inflammation in spongy bones, or the epiphysis of the long bones—a softening, molecular disintegration accompanied by suppuration of surrounding soft tissues. Its prominent causes are either scrofula, syphilis, or mercury, or a combination of those three elements of human destruction.

The symptoms of caries are usually obscure at first, very apt to be attributed to rheumatism or gout, pain, deep-seated, redness, swelling of tissues over the seat of pain, subsequently an abscess bursts, the discharge from which is foetid, sanious, loaded with bony granules. If we introduce a probe, it passes easily to the bone and penetrates it, and communicates to the feel a gritty sensation. Sinuses and great constitutional disturbance.

The treatment of caries should consist in building up the constitutional powers of the patient, and in eradicating the condition upon which the disease depends. For this purpose best of diet, beef, eggs, milk, oysters, and those invaluable alteratives, comp. syr. stillingia, frostwort, irisin, gold, bromide and iodide potass., tonics, iron, cinchona, hypophosphites, glycerine and phosphorus, iodide iron. Locally, great cleanliness, injections of ley or solutions of sesqui-carbonate potassa, or caustic potash, diluted permanganate potass.

CATALEPSY.—This remarkable disease of the brain and nervous system, is characterized by a sudden deprivation of sense, intelligence and voluntary motion—the patient retaining the same position during the paroxysm as that held at the moment of the attack, or in which he may be placed during its continuance. Seizure may last a few minutes, several hours or days—seizures intermittent, without regard to regularity of periods. There may be premonitory symptoms, as headache, mutability of temper, yawning, tinnitus, vertigo, palpitations, slight spasm of mind, confusion of senses, but generally it occurs suddenly. The eyes are fixed, either open or shut, pupils dilated. Restoration or recovery occurs suddenly, accompanied with sighing, pain or confusion in the head, with no recollection of what has occurred. No efforts to restore consciousness are effectual. Nervous and hysterical women are most liable to its attacks.

Catalepsy differs from ecstasy, somnambulism or clairvoyance, in its being associated with a diseased condition, the other states being produced by voluntary effort. Absence of mind—a mild form of catalepsy—mesmerism and spiritualism, also a species.

There is little danger in the large proportion of cases. It may, however, end in apoplexy, insanity or softening. It is often associated with some organic affection of the brain, as a tumor.

Predisposing causes may be, anything that diminishes vital power and increases the susceptibility of the nervous system—depressing passions, hereditary debility, intense mental labor, nervous exhaustion of scrofula, mercury, syphilis.

Exciting causes are, violent mental application, mental emotions, fright, terror, suppression of menses, ovarian disease.

TREATMENT.—This must be alterative, tonic and hygienic, and be directed by the general principles which govern us in the forms of disease with which it is associated. Specially I have derived the most satisfactory results in this diseased condition from the alternate use of hot and cold water poured on the nape of the neck, from the exhibition of phosphorus, quinine and iron, in alternation with five grain doses of the Calabar bean.

CATARACT.—By this term we understand an opacity of the crystalline lens or its capsule, which causes an obscuration, or a total loss of vision. Several varieties of both lenticular and capsular cataract are described, but three forms are more particularly recognized, according to situation of opacity, viz.: lenticular, capsular, and capsulo-lenticular cataract.

Hard or lenticular, peculiar to old people and recognized by its amber color, small size, density, hardness.

Soft or lenticular cataract may occur at any period of life. Generally due to a disintegration of the lens, which becomes opaque and swollen.

Capsular cataract consists of an opacity of the crystalline lens.

The opacity begins at the margin of the pupil, in the form of distinct spots or streaks, its color light and not uniform in consistency. If it occurs in children, soon after birth, it is called congenital cataract. Capsular cataract does not generally continue for a long period before the lens becomes involved also in the opacity. Almost the first indications of forming cataract is defective vision; objects appearing indistinct, as if covered by a mist or fog, then a speck may be detected behind the pupil, which gradually increases until blindness may be complete.

CAUSES.—Long continued use of the eyes upon minute objects, strong light, congestion of the eyes from any cause, irritation, mechanical injuries, hereditary predisposition, an accompaniment of disease, as diabetes.

One eye usually first affected, and then the other. Capsular cataract usually the result of inflammation, and invariably leads to opacity of lens.

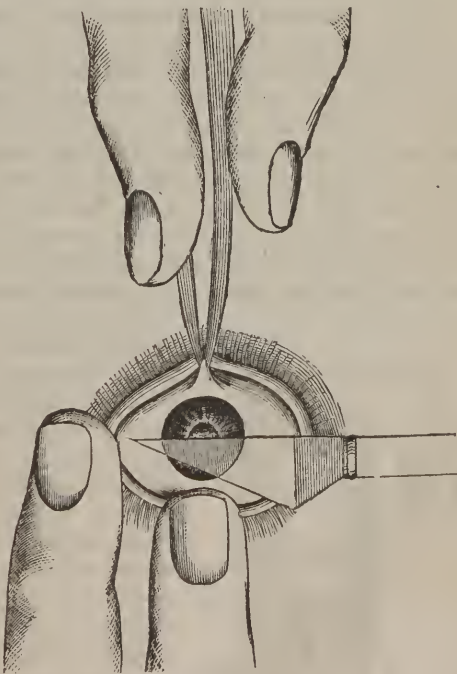
TREATMENT.—Three operations are resorted to for the cure of this disease.

1. *Depression, displacement, or couching*, a clumsy, inefficient operation, by which the lens is pushed from its natural position, so as to allow rays of light to pass through the pupil to retina.

2. *Solution or absorption*, in which the body of the lens is broken up at several sittings, so that it may undergo absorption.

3. *Extraction*, in which the opaque lens is removed entire through an incision in the cornea, as in the following illustration.

If the deposit of lymph on the capsule or lens is soft or plastic, remedies should have a trial for the purpose of removing the effusion or exciting absorption; stimulating vapors to the eye and remedies to excite absorption internally, as iodine, bromide, alteratives, tonics, &c.

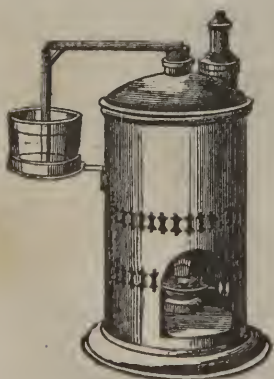


CATARRH.—Inflammation of mucous membrane of some portion of the air passages, characterized by sneezing, watery discharge from the nostrils; increased secretion from the lachrymal glands, slight headache, heavy feeling in the head, chilliness, fever, hoarseness and cough, sore throat, arrested secretions, furred tongue, thirst, loss of appetite, accelerated circulation, lassitude. Different names are applied to it as it affects particular parts: *coryza*, if it affects the Schneiderian membrane; *catarrhal cephalalgia*, when it affects the frontal sinus; *bronchitis*, when the stress falls on the trachea and bronchial tubes. Catarrh, properly speaking, affects the mucous lining of the nose and throat, and is extremely prevalent and intractable. Patients of a strumous diathesis are most liable to this form of disease, hence we find the disease of a low chronic type, and requiring a specific treatment.

In addition to the symptoms mentioned, the discharge from the nostrils may become acrid and saline, producing excoriation of the parts over which it passes, producing an eruption of herpes upon the lips, and in a few days the acute symptoms begin to subside, or the disease may pass into a chronic form, or tonsillitis, bronchitis may supervene.

If the catarrhal inflammation has been violent in a cachectic patient ulceration is the result.

In its primary condition, catarrh consists in a specific irritation of the mucous surface of the nostrils, extending to the frontal sinus, posterior nares, fauces, throat. The peculiar influence which originates catarrh affect, primarily, the organic nerves which supply the surface, disordered, and through them the system generally. Secretion and circulation in the part are specially deranged. The chief modifications of the disease arise from the degree in which the constitutional actions are disturbed, the extent of surface involved, and the grade of irritation produced.



TREATMENT.—In an acute attack an emetic of comp. powder of lobelia, followed by a vapor-bath, foot-bath or Turkish-bath. Aconite as an arterial sedative, acting freely on the secretions. Hot atomized vapors to control the local inflammation. Moist warmth is a powerful restorer of the arrested circulation and vital action that we possess; the safest therapeutic agent we have, because it is direct. The warm vapor should be allowed to come freely in contact with the inflamed mucous surface. Various remedies may be used for inhalation with good success. I am partial to sulphate hydrastin, or sanguinarin, or permanganate potassa here; they are rapidly absorbed by the mucous membrane.

The warm steam softens and relaxes the tissue, and renders it more prone for endosmose. Nothing acts so promptly as the hot atomizer in catarrh. If the disease does not yield, try bromide potass., iodide potass., chlorate potassa, sulp. zinc, or iron in various strengths as injections. If the case becomes chronic, an alterative course is indispensable: comp. syr. stillingia, irisin, gold, aluin, bromide and iodide potass., cinchona, iron, hydrastin, sulphites.

CELLULAR INFLAMMATION.—Diffuse inflammation of the cellular tissue, arising from punctures or abrasions received in performing post-mortem examinations, or bites of venomous reptiles, from puerperal discharges, &c., generally originates in the areolar tissues and absorbents, the skin secondarily involved. Erysipelatous redness, with red streaks and tenderness in the course of the lymphatics, rigors, pain, offensive perspiration, suppuration, gangrene, delirium, jaundice, dyspnœa, stupor, fatal exhaustion.

The best treatment consists in ligating above and below the wound; then apply powerful suction with a cupping-glass, then the caustic potassa should be freely applied. As soon as possible, a stimulating emetic of comp. powder of lobelia, follow this with quinine, brandy and iron, in alternation with sulphite of soda. Locally, a saturated solution of the sulphite of soda to the affected part. If there are red streaks running up the arm, paint them thoroughly with creasote, and apply alkaline poultices.

CEPHALAEMATOMA.—A bloody tumor, the result of pressure, appearing immediately after birth, between the bones of the skull and pericranium.

The tumor varies from the size of an egg to that of an orange. It is usually formed on one or other of the parietal bones, sometimes on both. Swelling soft, circumscribed and fluctuating.

The effusion is usually absorbed in two or three weeks, which may be hastened by the application of the following: *R*.—Muriate ammonia, \mathfrak{z} i; bromide ammonium, \mathfrak{z} ss; aqua dist., *Oss*.—*Mix*. Wet a piece of lint and keep constantly applied to the part. Never incise, nor apply compression.

CEREBRITIS.—This is characterized by an intolerable, persistent deep-seated pain in the head, aggravated by light, heat or motion; indescribable oppression, nausea, vomiting, arrest of all the secretions; impairment of all the senses, failure of the intellect, convulsions, paroxysms, terminating in paralysis and coma. The character of the symptoms will depend altogether on the part of the brain affected. We have here the usual results or terminations of inflammation, as effusion of serum, which gives rise to all the symptoms of compression, abscess, &c.

There are no class of diseases that are attracting such profound attention as those of the nervous system—brain diseases especially

have become so thoroughly understood of late years, that we can diagnose with certainty inflammation of particular spots or parts. It is true that this distinction is not of much importance in treatment.

Simple Meningitis.—Inflammation of the arachnoid and pia mater sometimes arises spontaneously, or it may be produced by blows, falls, by the metastasis of inflammation from the nose, ear, or by exposure to the sun. It often arises from the poison of syphilis, rheumatism, or deposit of tubercle.

The characteristic symptoms are, great febrile disturbance, acute pain in the head, irritability, early delirium, alternate flushings, followed by pallor, rapid pulse, muscular twitchings, prostration, coma.

If the membranes over the convexity of the brain are the seat of the inflammation, we diagnose it by being ushered in with a rigor in an adult, or a convulsion in a child; acute pain in the head—a headache increased by heat, by light, by sound, by movement. Secretions arrested, skin hot, dry, scanty urine, constipation, pulse hard and rapid. Alternate flushes and paleness, suffused eyes, injected conjunctiva; expression wild, staring. Noisy, violent delirium, which sets in early; extreme restlessness, muscular twitching, strabismus, vomiting. In three or four days febrile symptoms abate, pulse fails, tongue becomes brown, dry; excitement diminishes, delirium passes into coma. In a few days more intense profound prostration. If the termination is recovery, it is slow, tedious, but gradual; no hectic or diarrhœa.

If the inflammation is confined to the meningitis of the base, the diagnostic marks are, delirium, great fever, contracted pupils, ravings, quick pulse, clenching of teeth, retraction of head, pain in temples, vomiting, constipation, wry neck, loss of appetite, intolerance of light, a desire for quietness and repose. Subsequently, a vacant intellectual look, despondency, headache unrelieved, coma, ending in death.

Inflammation of the dura mater, almost invariably the result of mechanical violence. Inflammatory affections of the ear and nose, often regarded as trifling, frequently terminates fatally by extension of the disease to the dura mater.

I have often been able to detect inflammation of the brain existing in a latent form from an early examination of the urine. I have been led to a correct diagnosis, in a large number of cases, by a peculiar change in the urine. The diagnostic characters of this secretion are, a remarkably low specific gravity, 1010°, with no albumen, great diminution of coloring matter, urea, and solid constituents of the urine.

The treatment of inflammatory conditions of the brain consists in the administration of the powerful arterial sedatives, hydragogue cathartics, counter-irritation, and perfect rest and quietness.

By the aid of the ophthalmoscope, we can easily diagnose various

forms of effusion or hemorrhage before their characteristic symptoms set in. The most remarkable of these are, peripheral congestion of papilla, with spots of congestion in retina and choroid; also, dilatation and varicosity of the retinal veins, and, in some cases, effusion.

Cerebral Hemorrhage.—The pathognomonic features of cerebral hemorrhage are, more or less, paralysis on one side of the body, opposite to that at which the effusion has taken place. The intellect and senses may be unaffected; the patient may fall down, but this results from the paralysis, not from the sudden abolition of consciousness and sensibility, as in apoplexy. There may be sudden loss of power in arm, or limb, or speech, and without loss of consciousness. If the hemorrhage continues, the symptoms may gradually merge in apoplexy. Many cases of cerebral hemorrhage recover, if proper treatment is pursued.

TREATMENT.—If seen immediately following the effusion, free purgation, cup nape of neck freely, the counter-irritation, mustard roller applied from toes to knee, skin and kidneys acted on. Then a course of special remedies for the removal of the clot or effusion, as belladonna, iodid. and bromide potass., gold, irisin, &c.

CHAPPED HANDS.—This is caused by imperfect drying of the hands after washing, to the use of irritating substances, as cold and other causes.

The best treatment consists in drying the hands thoroughly after washing and applying: *R*.—Glycerine, $\mathfrak{z}\text{v}$; aqua rosea, $\mathfrak{z}\text{ii}$; borax, gr. xx.—*Mix* and apply.

CHLOROSIS.—A disease due to some depression of the nervous system, either congenital or acquired, where the vital stamina of the brain and spinal cord is diminished, and every organ of the body, dependent upon the proper performance of the centres of life, are deranged or depressed. A state of nervous depression, or impairment exists, as the basis, long before any appreciable lesion or alteration can be found in the blood or any organ of the body. It is a disease met with chiefly among girls of delicate organization, where an undue feebleness of the nervous system exists, and it may be that so long as this weakness of the nervous system is not overtasked, there may be no development of the disease. But if, from any cause, this delicate equilibrium be broke, we rapidly have all the symptoms of the disease supervening at that important period of life when puberty arrives, and nature calls for her monthly tribute of the vital fluid; when the uterine organs are developed and their potent reflex influences act upon the economy; when new emotions, desires, passions and affections powerfully stimulate the whole organism during the establishment of the catamenial flow, then the frail balance may be destroyed; the digestive, absorbent and assimilative functions fail, and the peculiar disease makes

its appearance. Patients of a weak nervous organization and lymphatic temperament are peculiarly liable to its attack.

SYMPTOMS.—In the early stage of chlorosis derangement of the stomach and bowels, manifested by a pale and bloated appearance of the tongue, foul breath, loss of appetite, morbid craving for indigestible food, torpid bowels and liver, tympanitic abdomen, fecal discharges, composed of imperfectly digested substances, unnatural in color and consistence.

If the disease, at this point, is not arrested, the symptoms become aggravated, and the patient becomes listless, irritable, languid, fond of solitude, unfit for bodily or mental exertion; the menstrual function becomes deranged; the face pale and humid: the lips lose their color, the eyelids are swollen and surrounded by a dark greenish or yellowish circle; emaciation begins, debility and lassitude become great, nervous, cardiac hysteric symptoms apparent.

Then we have the true characteristic symptoms of chlorosis developed, the surface is smooth and puffy; skin dry, pale, or yellowish, or lead-colored; muscles soft and flabby; œdema of the extremities; countenance pallid and wax-like; tongue clean, bloodless, semi-transparent; conjunctiva of a clear white color, or slightly tinged with blue; pulse feeble, rapid; occasional pains in the head, chest, stomach, side, abdomen; palpitation of the heart; menses superseded by a profuse leucorrhœal discharge; marked derangement of the functions of the liver, kidneys, skin and every part of the body.

DIAGNOSIS.—The only condition with which chlorosis is apt to be confounded is anæmia. Anæmia is generally caused by various circumstances that tend to impoverish the blood, as hemorrhage, exhaustive discharges, starvation; chlorosis is induced by some obscure nervous depression, and the disease developed by disturbed uterine functions. In anæmia, the alteration of the blood is constant and pathognomonic; in chlorosis, it is the only one of the phenomena, and not always present. In anæmia there is a constant relation between intensity of symptoms and poverty of the blood. This is never the case in chlorosis. A minute and careful examination of the history of every case will usually guide us correctly. Disease of the heart is attended with more pain, more disturbance of the circulation than chlorosis; the expression of the eyes, the countenance, are also widely different.

CAUSES.—Confinement in overheated apartments, sedentary habits, grief, anxiety, fatigue, leucorrhœa, amenorrhœa, masturbation, &c.

From these and like causes, operating on an exquisitely sensitive nervous system, we have an impairment of the fountain head of secretion and excretion; hence the symptoms of disordered action, of imperfect digestion, absorption and assimilation, consequently the blood is imperfectly elaborated, and incapable of nourishing the various parts of the body; hence the absence of animal heat

and vital power, and the tendency of this deteriorated blood to escape by the mucous membrane of the lungs, stomach and bowels.

TREATMENT.—The grand point in treatment is to improve the deteriorated vital forces, exercise in the open air, nutritious diet, salt water baths and sea-side residence, warm clothing, agreeable associations, and everything calculated to tone, invigorate and improve the patient should be resorted to.

Our attention should be directed to the improvement of the digestive organs, as a means of amending the deteriorated blood and impaired nervous system. An emetic, twice weekly, is very efficacious, comp. powder lobelia. We would regulate the bowels with: *R.*—Fluid ext. leptandria, ℥iii; fluid ext. nux vomica, ℥iii. —*M.* A teaspoonful morning and night. During the day comp. tinct. cinchona, in teaspoonful doses, every four hours, and to be alternated with ten drops of dilute phosphoric acid as often. These are our best remedies, and their exhibition is of essential importance in the treatment. If there is pain on pressure in any region of the spinal cord, apply either Ferminch's or Brown's acupuncture apparatus on both sides of the spinous processes, moderate pustulation by these instruments with the following: *R.*—Con. tinct. veratrin; ol. tigli; ol. capsicum, aa equal parts. Repeat twice weekly.

After secretion is well established by the above remedies, the essential treatment should consist in meeting the indication of debility of the nervous system and the poverty of the blood. Iron and phosphorus will supply those elements, and these two remedies should be perseveringly relied on and unsparingly given, at least in doses that are most easily assimilated. Emmenagogue remedies are often useful in inactivity of the uterus, occurring after puberty, where no marked delicacy of constitution is present. In chronic suppression they are especially indicated. An excellent formula for the purpose is the following: *R.*—Extracts sabine, podophyllum, betin, macrotin, erogine, helonin, equal parts, made into three grain pills, two at bed-time.

Pulsatilla is an indispensable remedy in chlorosis; it acts positively upon the organs of reproduction, and, next to phosphorus, our most valuable remedy. Macrocin exercises a controlling salutary influence over the uterine system.

CHOLERA.—Asiatic cholera originates in a peculiar specific poison, which is capable of being conveyed by currents of wind from one place to another, and in being absorbed in the form of minute particles or atoms, which, when breathed or absorbed, produce specific effects, and constitute an epidemic disease of such intensity that it often proves fatal in a few hours. The poison operates upon the nervous system, the brain and spinal cord, as is demonstrated by the early prostration, coldness and lividity of surface, vomiting, purging, suppression of urine, cramps of the muscles of the abdomen and extremities, sometimes preceded by diarrhoea, but more

frequently comes on suddenly without warning. It exhibits well-defined diagnostic marks, copious secretion into the stomach and bowels of a serous fluid, albuminous in character, free from acids or alkalies, resembling rice water, and discharged from the bowels and mouth without effort. An arrest of all the secretions and excretions, as tears, saliva, bile, fæces, urine, perspiration.

The skin cold and void of elasticity, presenting wrinkles, lead color. The mucous membrane in the same condition, tongue and breath cold, (70°, Fahr.) The muscles are in a state of tonic or clonic spasm, particularly in the lower extremities and abdominal muscles.

The specific poison is an infinitesimal, imponderable, morbid agent, generated from animal matter during the prevalence of some peculiar conditions of the atmosphere, and operates upon constitutions that are impaired by some depressing influence.

The symptoms of this disease usually present themselves in three stages.

First. Irritability, languor, sleepiness, confusion of head, countenance pale, derangement of stomach, diarrhœa, vomiting, symptoms that indicate the action, and also an effort of nature to eliminate a morbid poison from the system.

Second. To the above symptoms, we have in this stage the diarrhœa aggravated, the discharges are light-colored, become serous, the white flakes and rice-water discharges appear, the pupil is contracted, spasms, cramps, coldness of body, intermitting pulse. This stage usually lasts from two to forty-eight hours.

Third. Suppression of urine, prostration or collapse.

The general symptoms of these three stages in detail are as follows: copious vomiting and excessive diarrhœa without pain: stools consisting chiefly of water, containing large quantity of epithelium, resembling rice-water, albumen, and a large quantity of the salts of the blood, especially the chloride of sodium; cramps so hard as to cause the muscles to contract into cord-like masses.

The pulse is soft, easily compressed during the spasm, varies from 110 to 120°.

The skin is inelastic, cold, dry, smooth, pale, soon becomes of a leaden color, bluish. General temperature 65 to 70°.

The expression of the features is ghastly, eyeball sunken, glassy, cold clammy sweats, tongue and mucous membrane of mouth cold. Distress at the pit of the stomach, burning at the epigastrium, unquenchable thirst, albuminuria, suppression of urine, and all secretions, breath and surface cold. The heart and its ramifications, the blood-vessels, the whole circulatory system are affected by spasm, so is the respiration. The force of the poison is on the nervous system, which becomes early and decidedly affected, hence the whispering, husky voice, shrinking of the whole body, pinched features, contracted pupils. If the symptoms are not relieved, the breathing becomes less frequent, the rough, hoarse, husky voice

becomes spasmodic; the pulse thread-like and intermitting; circulation arrested, complete paralysis of lungs.

If the patient survives forty-eight hours and exhibits signs of improvement, he may recover rapidly, if the pulse rises, if the stools become bilious, respiration and circulation restored.

But very often improvement is only transient, suppression of urine, contracted pupil, &c., continue, and death is preceded by tonic and clonic spasm, vomiting, stertor and coma.

In still more favorable cases, a mild febrile exacerbation follows and subsides gradually in a few days; or this consecutive fever is of a more severe type, and a low typhoid condition follows, a contracted and immovable pupil often ushers in the symptoms, then suppression of urine, next an intermitting pulse, which is rapidly followed by thread-like peculiarity.

The symptoms and pathology of this disease emphatically demonstrate that the poison, or effluvia, operates positively and specifically upon the spinal cord, which is found, in all cases, after death, to be inflamed or congested, or entirely surrounded and compressed with serum.

TREATMENT.—If this epidemic prevails the most rigid sanitary and hygienic measures should be rigidly enforced, and a high standard of health maintained; all green fruits or vegetables, or indigestible articles of diet, should be scrupulously avoided; no uncleanness, no intemperance, no fatigue or over-exertion; no breathing of vitiated air; the best of diet at regular intervals; pure water. On the slightest derangement of stomach and bowels, that is, nausea, vomiting or diarrhœa, give neutralizing mixture, fl. ℥ss; leptandrin, gr. i; tinct. xanthoxilin, drops xx; every half hour until relieved; and if the slightest indisposition should exist it should be promptly checked by the neutralizing mixture and leptandrin; perfect rest in recumbent position, sinapisms of capsicum and vinegar to the entire abdomen and spine, and probably the best drink is an infusion of the inner bark of the white mulberry, ℥ii; bayberry bark, ℥ss, to a quart of water. A wineglassful every two or three hours, plain nutritious food, simple astringents, and, above all, the most perfect rest in the recumbent position.

If the disease has actually set in, if the premonitory symptoms have exhibited themselves, place the patient in the most comfortable apartment in the dwelling, have an equable temperature of 80°, Fahr. The diarrhœa and vomiting are evidently efforts of nature to expel the morbid poison from the system. I have found it good salutary practice to give a stimulating emetic, as follows:

℞.—Pulv. green lobelia, ℥ii;
 Pulv. bayberry bark, ℥i;
 Pulv. capsicum, ℥ss.—*M.*; or,

A tablespoonful of pulverized green lobelia, capsicum and bayberry, āā, to half a pint of boiling water. Give a wineglassful every five minutes, until free emesis is produced; follow this with

the neutralizing mixture, leptandrin and bayberry. Get the liver to secrete, perfect rest, oil or the powdered capsicum and alcohol to abdomen, and on each side of the spine, Brown's acupressure method followed with equal parts of oil capsicum and lobelia. The common cup and scarificer may be used on each side of the spine.

Opium in every form is contra-indicated, because it increases the congestion of the cord. Large doses, twelve or fifteen grains, of bromide potass., in a tablespoonful of water, are of undoubted utility. As a drink, the white mulberry tea, or iced champagne, or soda water.

If the pupil is contracted, and there are indications of spasms, cramps, coldness, intermitting pulse, these symptoms must be met promptly with the following:

Ry.—Antispasmodic tincture, ℥iii; (that is, tinct. lobelia, fl. ℥ii; tinct. capsicum, fl. ℥i; tinct. cypripedium, fl. ℥i;) and tinct. belladonna, fl. ℥i.—*Mix.* Of this give a teaspoonful in a tablespoonful of water every half hour. Belladonna, ℥iii. A teaspoonful mixed in a tablespoonful of sweetened water, or simple syrup, every hour, and alternated with twenty-grain doses of bromide potass.

If sinking is threatened, one drop of oil of capsicum in a teaspoonful of the tinct. of prickly ash, as often as indicated; powerful revulsives to spine. While these or other remedies are acting freely, give plenty of well-salted juice of raw meat or beef essence; relieve thirst with iced champagne. Keep a sinapism all through the case over gastric region. If cramps, coldness or sinking come on, depend upon oil capsicum; give it in half-drop doses every half hour in mucilage, and alternate with the following as frequently:

Ry.—Chloride sodium, grs. xx; carbonate soda, grs. xxx; chloride potass., grs. viii. Dissolve in water and give at a dose.

When vomiting is incessant, both medicine and drinks may be given in teaspoonful doses every few minutes.

If there is much irritability of the stomach, keep up active counter-irritation, and, above all things, maintain the recumbent position, and if there is much heat or burning pain, give either the carbonate or sulphite of soda. The following mixture might be thrown up the rectum:

Ry.—Castile soap water, fl. ℥iv; tinct. opium, fl. ℥i; spirits turpentine, drops xx, and repeated every two hours, if necessary.

To maintain a normal warmth nothing can equal dry heat, dry frictions, hot sand bags, the air of apartment pure.

An action of the liver is highly desirable, but the removal of the congestion of the cord the most important of them all, so that every means should be resorted to to fulfill those indications; ten grains of leptandrin every half hour or oftener, Brown's acupuncture method, dry cupping on both sides of the cord, followed by the application of the oils of lobelia and capsicum. In all cases stimulants should be regulated by the state of the pulse, and the vital forces of the patient; copious draughts of mulberry tea or

iced champagne are excellent. Hot sand bags around the entire surface of the patient, hot bricks to feet, hot bottles of water to axillæ and groin, dry frictions valuable, rubbing by attendants with diluted oil of tinct. or infusion of capsicum. In all cases spasmodic tendency must be subdued with comp. tinct. lobelia and bromide potass., in doses that can be tolerated.

The isolation of the patient is important; remove the bed from the walls, and put glass under the feet of the bed; surround him with pure air.

The excretions should be removed in a bed pan, with powerful disinfectants, and the greatest caution should be exercised in diet during convalescence. Liquid diet should be the rule, beef essence, farinaceous substances, until the biliary and renal secretions have been thoroughly established.

Convalescence should be established upon mineral acids, cinchona, hydrastin, phosphorus, shower baths, irritating plaster to spine.

CHOLERA INFANTUM.—A common disease among infants during the summer months, at the period of dentition, due to acetous fermentation of the contents of the stomach, creating a peculiar form of diarrhœa, vomiting, and arrest of the function of the liver, and subsequently from the impaired condition of the blood. We have tubercular exudation in the mesenteric glands, rapid and extreme emaciation.

The treatment consists in administering alkalies to overcome the acidity, arrest vomiting, and stimulate the function of the liver, as, *Ry.*—Neutralizing, \mathfrak{z} iii; leptandrin, \mathfrak{z} i; bicarbonate soda, \mathfrak{z} ii; nux vomica, grs. x.—*Mix.* A teaspoonful every four hours, and alternate with a teaspoonful of cod-liver oil, or the comp. syr. phosphates; daily salt water baths, diet, animal food, juice of raw meat, &c., &c.

CHORDEE.—In inflammation of the mucous membrane of the urethra, when we have that painful, crooked condition of the penis, nothing can excel the use of bromide potass., lupulin, camphor and gelsemin. The following is unsurpassed: *Ry.*—Bromide potass., \mathfrak{z} ss; lupulin, grs. x; camphor, grs. vi; gelsemin, grs. ss.—*Mix.* Give at bed-time.

CHOREA.—This disease is recognized by a want of control of the muscular nerves over the muscles in the waking state, which gives rise to irregular, tremulous and ludicrous actions of voluntary muscles. It occurs for the most part in girls of feeble constitution, of irritable, nervous temperament, between the ages of six and fifteen; it is met with more rarely in boys.

The commencement of this disease is usually manifested by nervous depression and irritability. The involuntary motions begin by slight twitching of the muscles of the face, then other muscles become affected—one or more limbs. Features curiously twisted and contorted; vacancy of countenance; articulation impeded; temper very irritable; appetite very irregular; often constipation. Generally one-half of the body more affected than the other. Irregular action ceases during sleep. The disease may last for years and produce no bad results; in other cases the intellect may become impaired. Some cases are attended with difficulty of respiration, disorder of the heart, rheumatic fever, &c.

CAUSE.—It is supposed to originate in a want of harmony between the gray and white matter of the cord. The existing or external causes are, anæmia, teething, worms, dyspepsia, skin eruptions, retarded catamenia, constipation, cold, insufficient food, excessive loss of blood, pregnancy, diseased bladder or uterus, mental emotion, as fear, strumous diathesis.

TREATMENT.—In the treatment of all cases of chorea a complete change of habits, occupations, and the fresh air of the country, abundant exercise, plain but highly nutritious diet, are indispensable. The exciting cause must be got rid of, whatever that may be. The whole nervous system, in this disease, is in a highly impressible condition, so that the smallest amount of peripheral irritation will often establish such a want of harmony as to develop the peculiar condition in all its intensity. Put the patient, in all cases, upon the bromide potass., in doses sufficient to control the spasmodic action, and then meet the case according to the cause. Regulate well the various secretions, bowels, skin and kidneys, and if retarded menstruation be the cause, give apiol and betin, alternated with iron, quinine and hydrastin; if worms, santonine, male fern, oil pumpkin seed, followed by purgatives and tonics; if caused by fright or terror, or mental distress, stramonium, belladonna, macrotin, strychnine; if constipation be the cause, the following I have found to be valuable:

R_x.—Extract podophyllum,
Colocynth, C., āā gr. iss;
Nux vomica, gr. ss.—*M.*

Repeat as indicated; if debility is the cause, rest, phosphorus and iron.

The great object, in a rational treatment, is to get rid of the cause, keeping the involuntary movements in perfect abeyance by 3ss doses of the bromide of potass. I have also, in a few cases, found the sulphate of analine of great value.

Macrotin is very valuable where uterine irritation exists.

Electricity, where there is anæmia or debility of the nerve centres,

Indian hemp has a peculiar influence on the nervous tissue, and aids a restoration of the want of equilibrium.

Counter-irritation on each side of the spinal column, with the acupuncture needles, has a most salutary effect.

If rheumatism is suspected, colchicum, quinine, alkalies, iodine, potassium, and the following bath: water, at a temperature of 96°, sixty gallons; sulphuret potassa, thirty drachms.

Shower bathing is very advantageous, free ventilation, cleanliness, daily frictions of the skin, warm clothing, wholesome nutritious diet.

CLITORITIS.—The clitoris is very frequently attacked with inflammation, which leads to hypertrophy, to the formation of abscess, or cystic degeneration. Irritation from excessive walking; dancing is the most common cause. In syphilitic cases it is often the seat of ulceration; in the cancerous diathesis it frequently becomes the seat of infiltration of that morbid product or cell. Cases are occasionally met with of excessive development from some congenital malformation. The entire organ is often found diseased, at other times only its prepuce.

Ladies who practice self-abuse are liable to have the clitoris indurated, enlarged, diseased in some way or other. The amputation or destruction of the organ has been resorted to in chorea, epilepsy, with poor success.

CLUB-FOOT.—Talipes or club-foot—a deformity produced by rigidity and contraction of various muscles; it may be congenital, or arise after birth, owing to undue action of certain muscles. One or both feet may be affected.

The exciting causes of non-congenital talipes are, any circumstances that prevent the proper nutrition of the muscles, or anything that interferes with their nervous supply. Wounds, accidents, inflammation, rheumatism, contraction of burns, spasm, paralysis, loss of balance of antagonistic muscles. It is believed that these deformities result from irregular conformation of the bones; a defect of equilibrium in the action of the muscles, or wrong action of the tendons. Mental emotion of the mother is an original primordial cause of deformities and marks. Hereditary descent and incompatibility of temperaments are well known causes.

There are a great many varieties of this abnormal deviation.

Talipes Equinus.—A rigid contraction of tendo-achilles, so that the heel cannot be brought to the ground, and the patient walks on the metatarsal bones. It is sometimes caused by teething, worms, &c. If the case is seen before the contracted muscles become rigidly fixed, the deformity may be overcome by splints, frictions, douches, electricity, &c. If these fail, subcutaneous division of the tendo-achilles.

Talipes Varus.—In this the inner edge of the heel is raised, inner edge of the foot drawn upwards, and the outer edge rests on the ground. In bad cases, the patient walks on the dorsum of the foot and outer ankle; contraction of the muscles of the calf and adductors of the foot. The division of the tendo-achilles, tibialis posticus, anticus and flexor longus digitorum.

Talipes Valgus.—This is the reverse of the *talipes varus*. Outer edge of the foot drawn upwards, so that the patient rests on the inside of instep and inner ankle. Due to the contraction of the peronei and the extensor longus digitorum; any tendons, in fact, which oppose the restoration of the foot to its proper position. Often expedient to divide a portion of the plantar fascia, or the muscles of the sole of the foot.

Talipes Calcaneus.—Elevation of the toes, with a falling of the

heel, so that the patient walks on the heel. Owing to paralysis of the muscles of the calf, there is no counteraction to contraction of those of the anterior tibia fibular region. Tendons of the tibialis anticus, long extensor of the toes and peroneus tertius may all need section before the foot can be brought to proper position. Immediately after the operation, the foot should be put quietly up with splint and roller, with a dossil of lint and strip of plaster over the punctures for a day or two, and then a properly adapted apparatus. The best of which I have ever used are those manufactured by Kolbe, of Philadelphia. The construction of this apparatus contains all the movements requisite in the correction of talipes varus, vulgus and equinus, in connection with teno-

tomy, or, if properly applied, without it. In children from a few weeks to one year of age the apparatus will effect a cure *simply by mechanical* treatment. It may be proper to state that while this apparatus (commonly called club-foot shoe,) combines the above mentioned movements, it also possesses the great advantage of allowing the patient to walk about shortly after the operation, at least as soon as the signs of inflammation have subsided. It not only relieves the patient from being compelled to lay down, but it greatly facilitates the progress of bringing the foot in its normal position. This important point has hitherto been entirely overlooked by all other mechanics.

For the purpose of aiding physicians in selecting or ordering a



properly adapted apparatus, we give the following diagram for measurement:

B A.—Circumference at the middle of thigh.

K L.—Circumference below the knee.

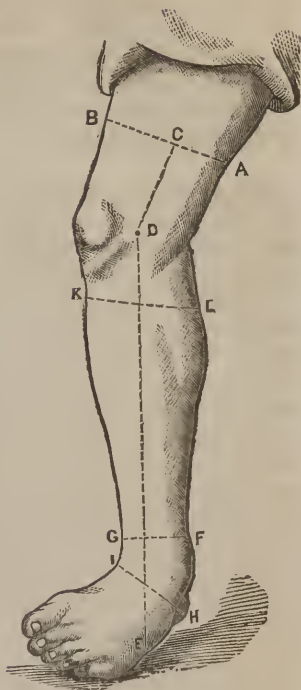
G F.—Circumference above the ankle.

I H.—Circumference over the instep and heel.

C D.—Length from middle of thigh to centre of knee joint.

D E.—Length from centre of knee joint to sole of foot.

To give a correct idea of the deformity, place the foot on a sheet of paper, and draw a line around it to ascertain its contour. It will be found in children from two years of age upward, who have been unsuccessfully treated, that for want of support from the heel, the muscular power of the knee has been impaired, causing the knee to bend backward and inward; this fact should be carefully observed in ordering, as the apparatus can be constructed to remedy this defect. State age and sex of the patient; also, whether tenotomy will be resorted to.



The principle upon which subcutaneous tenotomy is resorted to is very simple. The cut surface heals by connective tissue, which lengthens the tendon and admits of great distention while recent. A large number of cases might be cured without operation, by removal of the various sources of irritation; fomentations, frictions, electricity, shampooing the rigid muscles, tonics, good food, sea bathing, alkaline bathing, &c.

COCCYODYNIA.—Pain or tenderness about the coccyx often follows a fall, blows, violent exercise on horseback, and labor in females who bear children at an advanced period of life. Inflammation in this way is often set up in the muscular attachments to the coccyx.

In this affection, any movements which stretch the coccygeal ligaments, or bring the sacro-coccygeal articulation into play, causes pain, as sitting, rising, walking, defecation, sexual intercourse, even the menstrual flow. Coccydynia is often sympathetic, from uterine or ovarian irritation.

The treatment in all cases should be directed to the removal of

the cause; *if* due to rheumatism, the various anti-rheumatic remedies; *if* due to nervous irritation, nerve tonics, quinine, iron, hydrastin, phosphorus, nux vomica; *if* due to uterine irritation, bromide and iodide potass., hip baths, frictions with belladonna, suppositories of belladonna, subcutaneous injections of atropia or morphia, the most perfect rest, regulating the bowels with the juglandin, strict attention to hygiene, and every means calculated to improve the health.

COLD—when applied to any part of the body for a length of time, so as to diminish its temperature below the healthy standard, acts as a depressant or sedative, and applied for a certain period will produce perfect insensibility.

Extreme cold will first cause redness, and this is the result of a relaxed condition of the blood-vessels; and this redness is followed by biting or stinging pain, caused by pressure of the distended vessels upon the small nerves, and also by the direct influence of cold upon the nerves themselves.

If exposure to the influence of cold continues, the redness and congestion disappear, the stinging or biting pain subsides, the part becomes white, painless, stiff, frozen, vital action ceases, innervation, circulation, sensation, vitality is obliterated.

The process of congelation commences on the surface and extends inwards; the liquids and semi-solids crystallize, for the freezing of plasma takes place more readily than the solids.

The point to keep well before the mind, in treatment, is, that the freezing commences on the surface, driving the floating solids of the blood toward the heart; thawing should begin from within and progress toward the surface, else there may be a stratum of unthawed structure between the surface and the actively vital structures, thus cutting off all innervation and allowing chemical changes to take place, uncontrolled by vital force, which chemical changes occur speedily in animal structures the moment the vital force is withdrawn. The rubbing of the frozen part with snow, in an apartment in which the temperature is above the freezing point, is always advantageous, provided the frozen part is not too suddenly thawed. It produces moderate reaction, and restores sensibility and circulation.

Rubbing the frozen part with snow in a cold room, until thawing occurs, is the best treatment. Cold thus applied produces a reflex action; it stimulates the efferent nerves, and thus acts powerfully in arousing the respiratory, circulatory and cerebral functions; it forms an adequate stimulus, and when warmth and sensibility are restored, wiping dry, wrapping up in flannel, keeping the patient in bed in a cold room. Violent gangrenous inflammation is often excited if heat be injudiciously applied to a frozen part. Damp or moisture is a frequent cause of frost-bite.

The general treatment will be regulated entirely by the state of

the patient, supporting the strength by mild nourishments, taking care not to excite feverishness or headache.

A chilblain is a subacute inflammatory swelling, due to cold and the premature restoration of the circulation by heat.

In the early stage, swelling, slight redness, pain or itching; in the second stage, vesication; in the third, ulceration and sloughing. Parts whose circulation are feeble and exposed, most liable to suffer. It is more apt to attack the strumous, patients of deficient vital force.

The treatment best calculated to do the most good in the first and second stages is the alternate use of astringents and stimulants. Apply cloths, saturated with tincture capsicum, to the affected parts during the day, and a solution of tannin or tincture of galls during the night. In the third stage, stimulating liniments, as: *R*.—Black salve, \mathfrak{z} i; turpentine, \mathfrak{z} ii.—*Mix*; or equal parts of glycerine and soap liniment.

The constitutional treatment that will succeed best is good food; wine, cinchona and hydrastin; glycerine and phosphorus; warm clothing.

COLIC.—This is characterized by severe, griping or twisting pain in the abdomen, particularly about the region of the umbilicus, occurring in paroxysms. There are numerous varieties, as colic from improper food; flatulent colic; bilious colic; nervous colic; lead colic, &c.

The characteristics of all forms are: the pain is relieved by pressure, never aggravated by it; a total absence of all febrile and inflammatory symptoms; vomiting, constipation, depression, animal heat lowered; countenance anxious. Symptoms never can be confounded with peritonitis, gastralgia and the like.

Excess, indigestion, bilious derangement, unwholesome food, acids, and agents that undergo fermentation on the stomach, dyspepsia, absorption of metallic poisons; irritation of the intestine by morbid secretions, fecal matter; fright, cold, hysteria, gout, are frequent causes of colic.

The symptoms in each form are modified by the cause.

So long as it does not exceed the limit of spasmodic action, it generally terminates favorably; but if there is tenderness, tension of the abdomen, symptoms of inflammation, the case is more unfavorable.

The indications of cure are, to relax spasm, and restore the peristaltic action. Warm water is a valuable remedy; warm fomentations, enemas of warm water; the warm bath is worthy of the most scrupulous attention and should never be lost sight of, to relax abdominal spasm. The soothing effect of warm water upon the nervous system, when in a state of unnatural erethism, is too valuable to be neglected. Whatever may be the form of colic, give a teaspoonful of the fluid extracts of lobelia and dioscorea, every

five minutes, until relaxation is perfect, then give a pill as follows, until the bowels freely respond: *R*.—Lobelia, dioscorein, colocynthin, jalapin, āā gr. i.—*Mix.* • One every ten minutes, with a strong infusion of asclepias. We have no better remedies than the dioscorein and lobelia, given with asclepin, repeated frequently until the patient is thoroughly relieved.

If it depends upon the absorption of lead, a *blue* or purplish line is seen running along the edges of the gums just where they meet the teeth, the most obstinate constipation. The same treatment is indicated with the addition of five grains of the iodide potass. every three hours, which sets the mineral poison free, and is rapidly eliminated by the secretions. A chemical antidote in high repute is alum, which has the power of converting the salts of lead into a comparatively innocent sulphate.

COLLAPSE—Is commonly defined as that general depression of the vital forces that follows an injury, wound, any accident or loss of blood. The most prominent symptoms are: the patient is usually found lying cold, shivering, half unconscious, with a feeble pulse, sighing respiration, or he may be bewildered, incoherent; nausea, vomiting, hiccough, suppression of urine, and it may be convulsions—*all which symptoms are due to an impaired or disturbed condition of the brain and spinal cord.* The mode of recovery from prostration, or collapse, is termed *reaction*, and everything depends upon the nature of that *reaction*; if it be altogether wanting or absent it may terminate in death; if it be excessive we may have undue excitement and fever; if it be healthy and moderate, complete recovery.

In the treatment, the great indication is to excite the vital organs to a moderate and healthy reaction, so that if the patient is shivering, with cold skin, almost imperceptible pulse, &c., diffusive stimulants should be given, as brandy, capsicum, xanthoxylum, ammonia; heated bricks around the body, bottles of hot water between the thighs, under the axilla, perfect rest in recumbent position. Stimulate till the circulation is restored, till the pulse is permanent and full. If reaction fails by these means, apply scorching hot pillows to the spine every few minutes, enemas of brandy or turpentine to excite reflex action, acupuncture on both sides of the spine, and brush over the oil of capsicum; mustard to the extremities. Otherwise, treat special symptoms upon general principles. If there is vomiting, an emetic of lobelia, and after its action, small doses of the neutralizing mixture; if there is convulsions, enemas of turpentine, and, internally, lobelia and belladonna.

Convalescence in all cases should be guarded.

CONCUSSION OF BRAIN.—A concussion of the brain is usually caused by a blow, fall, or some mechanical injury. Concussions are more frequent than what is generally supposed; the shocks and jarrings of vehicles, cars, &c., cause disturbance of the vascular system of the brain, and jarring of the structure of the brain itself. The best treatment is perfect rest; absolute rest to the delicate structure of the organ. If the symptoms indicate the need of remedies, belladonna is the most appropriate, given in small doses. Next, cannabis indica, hyoscyamus. But rest is the best restorative.

CONCUSSION SPINAL CORD.—The spinal cord and its membranes are liable to inflammation, with its results; to derangements of nutrition, as well as concussion or compression; while its intimate connection with every part of the organism, through nerves arising from, or communicating directly with it, renders any injury to its delicate structure almost certain to originate a serious train of symptoms. Spinal concussion may be latent for years, or its symptoms may be apparent at once, in the shape of a peculiar sensation, as pins and needles in the hands and feet, stiffness, extreme sensitiveness over the entire body.

The main point in treatment is, the enforcement of perfect rest in the recumbent position, and giving small doses of belladonna, ergot and bromide potassa—agents which act specifically in removing congestion of the cord or its membranes.

CONJUNCTIVITIS.—Inflammation of the mucous membrane of the eye is a common disease, and is met with as a symptomatic, acute or chronic affection; its causes are local or constitutional. Its varieties are, the simple, eruptive, catarrhal, purulent, gonorrhœal, and that peculiar to new-born infants.

It has peculiar well-marked characteristic symptoms in all its various forms. The conjunctiva is injected with red blood, and there is effusion of serum into areola, between conjunctiva and sclerotic, called chemosis—there is then extreme sensitiveness to light; a feeling as if sand or dust was in the eye; heat, swelling, stiffness and pain in the globe and edges of the lids. The functions of the eye are more or less perverted, the intolerance of light becomes extreme, profuse scalding tears, disordered vision, profuse secretion from meibomian glands, intense pain on moving the lids, sense of distention, weight and rigidity of the organ, pain in the eye, temple and forehead.

Besides these local symptoms there are constitutional symptoms, as chills, accelerated respiration and circulation, hot and dry skin, congestion of head and face, anorexia, irritability, lassitude and fever.

The severity of the symptoms depends upon the cause and the constitution of the patient.

Ophthalmia, even in its worse form, if properly treated, may terminate in a cure, but it sometimes ends in effusion, and more rarely in ulceration.

This disease is very amenable to proper treatment. The first indication of treatment is to perfectly control the inflammatory condition with sufficient doses of veratrum and aconite, and neutralize the purulent discharge with lotions of permanganate of potass., grs. v to ʒi of water, injected underneath the lids, and a compress saturated with it kept constantly applied. Invariably begin treatment with an emetic of comp. powder of lobelia; unlock the secretions with comp. podophyllin pill and alcoholic vapor bath. The following I have dropped three or four drops into the eye morning and night:—*Rx.*—Atropia, grs. ii; aqua dist., ʒi .—*Mix.* To keep the pupil well dilated and prevent adhesion of the iris. The patient should be confined in an apartment in which light is carefully excluded. Light, the natural stimulus of a healthy eye, becomes an irritant when that organ is in a state of inflammation—it becomes a morbid agent, capable of aggravating and perpetuating the disease. An inflamed stomach cannot tolerate its natural stimulus, food; so an inflamed eye cannot bear its ordinary stimulant, light. Perfect cleanliness should be enjoined, an exclusion of all dust or vapor, and in making applications, avoid all irritation and compression. I entertain the highest opinion of the permanganate lotion, used as an injection at least every two hours, and a few folds of soft linen, wrung out of the same, kept loosely applied over the eyes. This application should be persisted in at suitable intervals, until the active symptoms have subsided, then astringent lotions are of the greatest utility, strong infusions of pulverized galls and hydrastis, and convalescence established upon quinine, hydrastin, nux vomica and phosphorus; generous diet, change of air.

Purulent Ophthalmia.—This is the most violent of all the forms of inflammation attacking the conjunctiva, and is attended with all the symptoms of the simple form, and, in addition, is attended with a thick purulent discharge, which supervenes in from twenty-four to forty-eight hours after the disease has made its appearance. It differs from all other forms of ophthalmia in the virulence of its contagion and the great rapidity of its course. The varieties that are classed under this head are, the purulent ophthalmia of infants, of adults, and gonorrhœal ophthalmia.

Purulent ophthalmia of infants is caused by the leucorrhœal or gonorrhœal discharges of the mother coming in contact with the mucous membrane of the conjunctiva; neglect of washing away the cheesy secretion of the child, cold, damp, light, bad nursing.

Purulent ophthalmia of adults is often caused by direct contagion, by exposure, close damp atmosphere, loaded with animal vapors, from crowding persons together in a confined space, and from the neglect of proper hygienic or sanitary measures. The discharge is both infectious and contagious.

Gonorrhœal Ophthalmia—results from the inoculation of gonorrhœal matter to the mucous membrane, and comes upon the eye with terrible suddenness in a few hours after infection, and if not promptly relieved, quickly terminates in some of the results of inflammation.

There are no marks by which we can accurately diagnose these forms from common acute ophthalmia, unless it be the intensity and rapidity of the symptoms and the abundance of the muco-purulent discharge, and also the violence of the constitutional symptoms.

The *consequences* of the various forms of purulent ophthalmia may be ulceration, opacity from effusion, or, perhaps, sloughing of the cornea, adhesion of the iris, or impairment of vision from extension of the inflammation.

In the treatment we would observe the same indications as laid down in the simple form, but more active; circulation thoroughly controlled, lotions and injections of the permanganate potassa, active counter-irritation behind the ears, nape of the neck, diuresis and diaphoresis active. As soon as the secretions are unlocked, pulse reduced to 70° , come in with the following every hour:—*Ry.* Quinine, iron by hydrogen, āā q. s. to make 20 powders, containing two grains each, and give one every hour. Keep pupil well dilated, as above. The treatment in purulent ophthalmia should be incessantly and perfectly carried out, both day and night, for there is no mistake more fatal than neglecting the patient over night—in allowing the purulent destructive discharge to remain locked up. Pain should be relieved by the administration of anodynes. As soon as the febrile condition is subdued, an important item is the administration of alteratives, as stillingia, alhuin, irisin, cinchona.

Scrofulous Ophthalmia is common in children about eight years of age, often an early manifestation of this peculiar diathesis; there is marked intolerance of light; lids spasmodically closed; the head turned obstinately to one side away from the light; no general vascularity of the conjunctiva; one or more small opaque spots or pimples, or pustules, on the cornea. The most remarkable symptom is the intolerance of light, attended with watering of the eye and sneezing. Other scrofulous symptoms are readily detected. The predisposing cause is the scrofulous diathesis which hastens the progress of a local inflammatory disease, and also tends to prolong it indefinitely. The exciting cause is irritation or injuries.

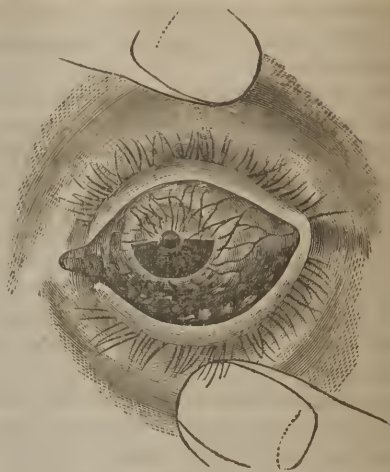
The treatment here should consist in building up the vital forces of the patient with nourishing food, pure air, salt water bathing, tonics, glycerine and phosphorus.

Locally, warm fomentations, astringent lotions, a green shade, irritating plaster to nape of the neck, and a general alterative and tonic course.

Granular Conjunctiva—is of a sequel of the various forms of oph-

thalmia when treated with the old remedies, as nitrate of silver, acetate of lead, sulphate of copper, &c. The conjunctiva is found red, uneven, fleshy, granular, as exhibited in the annexed wood-cut. These granulations consist of inflamed mucous follicles and papillæ; they often create great irritation, ulceration and opacity of the cornea.

The only treatment successful is alteratives and tonics; get the health of the patient in as good condition as possible, then put him upon comp. syr. stillingia and iodide potass., glycerine and iodine, brush the granulations once a week with a solution of the sesquicarbonate potassa, or undiluted liquor potassa. We have also a valuable remedy in chlorine for the purpose of getting rid of the granular disease; chlorine water applied to the granulations, as often as can be borne, not to excite inflammation afresh, has a remarkable effect upon the part; it is an alterative and an astringent, and has also a chemical action on the granular condition, a decided influence on vascularization and secretion, kills granular states, and promotes cicatrization.



CONSTIPATION.—In health the intestinal apparatus completes its revolution once in twenty-four hours. In that period the process of digestion is completed, the carrying forward of the contents of the stomach, the absorption of the chyle, and expulsion of the fæces should be accomplished. Any deviation from this condition may be regarded as resulting in a state of constitutional disease. Constipation is dependent on a morbid condition, affecting either the whole or special parts of the entire apparatus or conditions upon which their healthy function depends. There is a condition of gastro-intestinal torpor, but no structural disease. The natural peristaltic action of the bowels is deranged, either from a deficiency of healthy secretions or from a want of bile due to a torpid condition of the liver; a deficiency of bile constitutes a prominent difficulty; deficiency of nervous energy, impaired vital force, hence we often find it a symptom of scrofula, anæmia, chlorosis, debility. Constipation, if not relieved, progresses onwards from bad to worse. The retention of effete matter in the bowels is a source of discomfort; it impedes the process of assimilation of the food; growth

and nutrition is arrested, hence weakness, lack of nervous energy and muscular power.

The treatment of constipation by purgatives is not in accordance with the principles of true science. To cure, we must know the cause on which it depends, and cure by giving tone, stimulating nervous and biliary functions, and improve the secretory powers of the intestines. Habit has a beneficial effect on constipation; a habit of relieving the bowels at a particular time, every day, after the morning meal. The act of eating gives an impulse to peristaltic action, and at these times it is easy to propagate the impulse along the whole tract. Moderation in everything, daily bathing, exercise, friction to the whole body, especially the spine.

Water internally is a valuable agent; drinking water beyond the demands of thirst is attended with marked benefit in all diseases of arrested metamorphosis. Habitual constipation and want of secretion in the bowels may be promptly relieved by the following: R.—Leptandrin, grs. iii; nux vomica, gr. $\frac{1}{4}$.—*Mix.* Give at bed-time, and six drops of nitro-muriatic acid thrice daily. If that fail, give ten grains of extract of ox gall, with gr. $\frac{1}{2}$ nux vomica, morning and night. In cases where there is deficient nervous energy, electricity is very valuable. Apply the positive pole to the spine, and bathe the bowels with the negative, or apply the positive to the tongue and the negative to the rectum.

Euonymin, combined with nux vomica, extremely valuable in constipation.

Leptandrin, triturated with pulverized liquorice is well adapted for the constipation of children.

We have found the following excellent in all forms of constipation:

R.—Podophyllin, grs. v; Leptandrin, grs. xxx; nux vomica, grs. viii; Sulph. Hydrastin, \mathfrak{z} i; Ext. Taraxacum, q. s.—*Mix.*

Make thirty pills. One at bed-time.

Wholesome and digestible food, ripe fruits, bran bread, daily exercise, avoidance of too much sleep, &c.

CONVULSIONS.—These, in some cases, result from some appreciable cerebral disorder; in others they develop themselves without any visible connection with prior or existing disease. So that this divides them into the following: 1. Convulsions without primary lesion or change of structure, originating from sympathetic or reflex irritation. 2. Convulsions depending upon some lesion of the brain or its appendages.

The sudden spasmodic, involuntary action of the muscles in this condition, depends on some derangement or disease. Epileptiform convulsions are due to reflex irritation, or to some fault in the cortical substance of the hemispheres. Convulsions are indications of irritation, excitement of the hemispherical ganglion, irritation of tubular neurine in its course to the muscles.

Convulsions affect the muscles of the whole body, occurs in parox-

ysms and attended with unconsciousness. In some cases the contractions are partial, of long duration, and attended with hardness of the affected muscles, (tonic spasms;) in some cases alternate contractions and relaxations, (clonic spasms.)

The most common causes are, organic diseases of the nervous system, generally from a psoric origin, as gout, rheumatism, syphilis, vaccination, an insufficient supply of blood to the nerve centres, as in anæmia, scrofula; but the largest proportion of cases are due to reflex irritation from the gums, stomach, bowels, as teething, indigestion, acidity, saccharine substances, intestinal irritation, worms, renal diseases, albuminuria, uræmia, pregnancy, hepatic diseases, absorption of bile, morbid states of the blood, as in scarlet fever, small-pox, measles; morbid conditions of the nervous system, as we have when such poisons as whooping-cough be the sudden impression of mental emotion, miasma.

There may be a class of premonitory symptoms—bad humor, sudden starting during sleep, restlessness, screams during sleep, rapid change of complexion. If it occurs during dentition, heat and redness of the gums, fever, vomiting, morbid appearance of the stools, acidity of stomach, eyes rolled upwards, tremor of facial muscles, smiling during sleep, breathing irregularly, twitching of particular parts, clenching of the fingers and toes, livid or paleness around the mouth; but these symptoms may all be absent, and all on a sudden all the voluntary muscles may be attacked, or there may be partial twitching, as spasm of the features or one-half of the body or a single limb. During the paroxysm there is a distortion of features, pallor or lividity of face, starting or protuberant eyeballs, insensibility of pupils to light, grinding and gnashing of teeth, protrusion of tongue, involuntary evacuations, laborious respiration. The attack is usually followed by a tendency to sleep. Not fatal unless connected with severe disease.

TREATMENT.—Immediately loosen the dress, especially about the neck and chest; place the patient in the recumbent position, head well elevated and in such a position as he can breath fresh air. If there is any possibility of swallowing, give *C.* tincture of lobelia and gelsemin, repeat every few minutes, until thoroughly relaxed; if he cannot swallow, give it per enema, enough to produce thorough positive relaxation, keeping the patient under its influence for a few hours. Cold effusion to the head, if there be heat and flushing, a warm bath, mustard foot-bath, purgations and antispasmodics. I have found the following excellent:—*R.* Water, Oss; muriate ammonia, \mathfrak{z} i; nitrate potassa, \mathfrak{z} iii; chloride sodium, \mathfrak{z} vi; aqua camphor, \mathfrak{z} v.—*Mix.* Saturate a compress and keep the back portion of child's head constantly wet with the same. Lobelia, assa-fœtida, cold or ice to the spine, dry cupping to nape of the neck, subcutaneous injections of morphia or belladonna; chloroform, if these means fail.

If the gums are irritated and the teeth delayed, scarify the gums,

regulate the secretions, and put the patient upon C. syr. of phosphates of lime, soda and iron; if worms seems to be an exciting cause give santonine and podophyllin; if it be due to the striking in of an eruption, an emetic of comp. tincture lobelia, warm bath, aconite and asclepin; if constipation be the cause, remove with leptandrin and nux; if acid and dyspepsia seem to excite, alkalies, bitter tonics, mineral acids; if the strumous diathesis be the cause, phosphorus, iron, glycerine and iodine, extract carnis, &c., &c.

The means to control spasmodic action are abundant, but lobelia internally and ice to the spine are decidedly our best. Having controlled spasmodic action we must get rid of the cause, else a recurrence may be expected. The cause must be got rid of, and at the same time means should be adopted to diminish the reflex excitability of the nervous centres. The drugs to be employed are, those whose action is positive upon the brain and cord, for instance, bromide potass., belladonna, valerian, scutellarin, are specific in epilepsy; the alternate use of cold and warmth to the spine is very valuable in diminishing reflex excitability. Anæmia often causes excitability of nerve centres, and everything that improves nutrition and the condition of the blood is serviceable. For the cure of convulsions sleep is important, and to improve this condition nothing can excel that invaluable drug, bromide potass. A most valuable remedy in the cure of convulsive disease is an infusion or fluid extract of skunk cabbage.

Puerperal Convulsions—are mostly due either to congestion of the brain or to reflex irritation propagated from the sacral nerves; if due to the former I have derived the most satisfactory results from veratrin, sufficient to bring the circulation within normal bounds and the inhalation of chloroform to subdue spasmodic action. If the result of reflex irritation, no remedy can excel lobelia; give it until thorough positive relaxation is induced; it might also be judicious to alternate with large doses of stramonium. If the convulsions occur during labor, hasten delivery by the proper means, keeping the patient under the influence of chloroform. In all forms of puerperal convulsions, lobelia, stramonium, veratrin and chloroform are our grand antispasmodics. But if they prevail after delivery, hypodermic injections of morphia or atropia, and if bad, occasional chloroform inhalations, establishing recovery upon the fluid extract of stramonium and bromide potass., in doses of from thirty to forty grains to the dose.

CORNEA.—All diseases of the cornea are less distinctly limited to the cornea than disease of any other part of the eye, and the cornea being a tissue of remarkably low organization, its diseases have a tendency to slow recovery, and consequently require time for the purpose of repair. This grade of low vitality favors rapid disorganization, and it is a note-worthy fact that most diseases of the cornea are dependent upon a debilitated state of the system.

Inflammation of the Cornea—may be a consequence of an injury, or it may depend upon syphilis, scrofula or some cachectic condition.

The most characteristic symptoms are, that the cornea becomes red, opaque, the sclerotic around highly vascular—a crescentric plexus of minute vessels can be seen passing from the edge of the cornea, abundant secretion of tears, haziness of the cornea with opacity, which assume different forms or hues. One or both eyes often affected. Intolerance of light. Interstitial inflammation of the cornea gives rise to deposits among the lamina; effusions of lymph capable of being absorbed, or of undergoing a purulent transformation, forming small abscesses, which may discharge externally or into the anterior chamber. Most commonly softening takes place posteriorly; pus makes its way into the anterior chamber, to the bottom of which it sinks, when it assumes a crescentric form—*hypopyon*. If an opening occurs anteriorly, a perforating ulcer of the cornea is produced, through which the iris protrudes—*staphyloma iridis*.

It is scarcely possible to diagnose the different varieties, the cause and the fact that in the syphilitic and scrofulous form, the cornea is more opaque, rough, red, prominent; pain and intolerance of light, febrile disturbance.

Here the first points in treatment are, attention to gastric, hepatic and intestinal condition. Good is always derived from a stimulating emetic of lobelia, followed by a cathartic of podophyllin and bitartrate potassa. An occasional alcoholic vapor bath, followed with aconite and asclepin or comp. tinct. serpentaria. Then the disease calls for remedies that produce a change—anything that improves the quantity and quality of the blood, and antagonise any morbid peculiarities of the system. *Atropia*, in the form of gelatine paper, is an excellent remedy to prevent contraction and synechia, and also a powerful sedative; counter-irritation, active and persistent behind the ears, nape of the neck, and, just as soon as febrile symptoms are controlled, iodide potass., bromide ammon., gold, platinum, aluina, glycerine and phosphorus, quinine, iron, hydrastin, &c.; nourishing diet, warm anodyne fomentations to the eyes.

Opacity of Cornea—is frequently the result of inflammation, which has given rise to effusion of fibrine into the substance of the cornea, or between it and the conjunctiva; or it may be the consequence of a cicatrix following an ulcer. Opacities of the cornea are distinguished by different names, according to their density, and the character and situation of the lesion.

NEBULA is a mere cloudiness, the result of effusion of plastic lymph, which has become permanent and organized—a very common occurrence after any inflammation of the cornea. Nebula is the slightest degree of opacity, and are generally situated in the superficial layers. The opacity may cover the whole of the cornea, and yet

the patient may distinguish objects as through a veil. In other cases the nebula may be scattered in distinct specks or spots.

ALBUGO resembles nebula in some respects, but is deeper seated, and in being of a pearly-white appearance, and is the result of an effusion of plastic lymph in the anterior layers of the cornea.

LEUCOMA differs from the other varieties of opacity in being more dense, of chalky-white color, with a shining aspect; it is an opaque cicatrix of cornea, a transformation of the substance of the cornea itself, and an adhesion to the mucous covering; it has a contracted, circumscribed appearance, depressed in its centre.

All forms of deposits or specks, as *nebula*, *albugo* and *leucoma*, have a natural tendency to disperse as soon as the disease giving rise to them subsides, or is removed, hence the indispensable necessity of removing all sources of irritation about the lids, as inverted lids, granular conjunctiva. Any degree of inflammation should be subdued. Then, once or twice a week, the part of the cornea where the effusion is thrown out should be brushed over with the sesquicarbonate of potassa, and then astringent anodyne washes should be used. Now, these remedies should be used with caution; we must not excite inflammation, but merely stimulate to excite absorption. Patience and perseverance are essential to success. Other remedies might be substituted for the potassa. I have used the bisulphide of carbon, a saturated solution of chloride of sodium, &c. Hydrocyanic acid in some cases is excellent; it exerts a specific action upon the eye. The manner of using this is as follows: Put a drachm of the acid into a wide-mouthed vial, and hold it close to the eye (the lids being open) for the space of half a minute or so, or until the patient feels a little warmth, or until you perceive the pupil dilate and the vessels of the eye become injected with blood, then follow with anodyne washes of opium.

The constitutional treatment best calculated to do good, is that which builds up the patient and excites the absorbents. In *albugo* and *nebula* these means are often attended with most excellent results. Frequent repetitions of hydragogue cathartics, iodine baths, strong diuretics, aid in procuring absorption, while the more steady and permanent means consist in counter-irritation, iodide potassium, gold, platinum.

ONYX derives its name from the white spot at the root of the finger nail. It is a result of ophthalmia and corneitis. It consists, first, of an effusion of lymph which undergoes suppuration between the layers of the cornea. This is often removed by absorption with the same means as used under the form of opacity.

ARCUS SENILIS is a cloudy ring near the margin of the cornea, in some cases extending completely around it, in other cases being only partial, usually an indication of fatty disease of the heart. It rarely affects the field of vision.

Ulcers on the Cornea—are often a consequence of inflammation of the cornea and also of the conjunctiva. When of a scrofulous type

they present every variety of condition, superficial, deep, burrowing; they are found small, irregular, uneven. An excellent mode of treatment consists in stimulating the ulcer by the application of the sesqui-carbonate potassa, or, if there is induration, the caustic potassa. Barely touch the ulcer with a camel's-hair pencil-brush, and as soon as it changes color, apply a few drops of vinegar, which will neutralize the alkali and prevent excoriation of the surrounding parts. The sesqui-carbonate is unattended with any danger, and in the large proportion of cases is sufficient. The preparations of lead and silver are most deleterious in their effects, and should not be used. If any undue excitement prevails, active counter-irritation, promptly controlling symptoms as they arise. An antiscrofulous course of treatment should be rigidly carried on.

COUP DE SOLEIL.—This condition is attributed to two causes; (1) to a direct want of serum in the blood, the watery constituents being drained off by a high degree of dry heat; (2) to direct depression of the nervous system, hence the functions of the eliminating organs, as the lungs, liver, kidneys, skin, are imperfectly performed. The blood is imperfectly oxidized, drained of its serum; it has a tendency to coagulation in the coats of the vessels, in the brain and heart—the bowels are confined, liver torpid, secretion of urine greatly diminished.

This clotty condition of the blood and direct depression of the nervous system gives rise to faintness, a craving for water, heat and dryness of skin, great nervous depression, vertigo, tightness across the chest, quick pulse, then small and feeble, heart's action becomes violent; stupor, face pallid, vomiting, coma, great dyspnoea, contracted pupils, congested conjunctiva; action of heart intermittent, and, just prior to death, dilatation of pupils, gasping respirations or vomiting.

The symptoms are often very variable, languor, lassitude, stupor, and, perhaps, a sudden seizure. Recovery is very apt to be retarded, paralysis and insanity often a sequel.

The greatest good is to be derived from water in the treatment of this condition, wrapping the patient up in blankets or sheets wrung out of tepid water, keeping them constantly moist, so that the skin may have an opportunity of imbibing water to supply the agent that is demanded in the blood. Copious enemata of tepid water. *Water is our most reliable remedy*; tepid water to the head.

If the stomach is loaded, an emetic of comp. tincture lobelia, and let him drink freely of tepid water with bicarbonate of soda, and then give remedies to increase the solubility of the blood. Ammonia in some form; elixir valerianate of ammonia; muriate or bromide of ammonia. Move the bowels with ten grains of leptandrin and one drop of ol. tigllii.

As soon as the patient can swallow, give him half teaspoonful doses of sesqui-carbonate of ammonia, freely diluted with water, as this is our best remedy for exciting the heart and circulation, as well as rendering the blood more soluble, being perfectly antagonistic to clotty blood. If there is stupor, keep up with the water treatment and alkali, and, if no improvement, cup the spine, nape of the neck, over the shoulders, and apply counter-irritation, brisk friction to the entire surface. If we need a stimulant, use carbonate of ammonia; artificial heat, if necessary; mustard sinapisms to limbs, and, if the case gets along well, treat the same as in phrenitis.

Prophylactic measures should be adopted where such a terrible affection is suspected. The one most important is, an abundant supply of plain cold water, and a rigid avoidance of alcoholic drinks. Clothing to be adapted to the temperature, free, easy, comfortable.

CRETINISM—May be described as an imperfect formation or development of body, accompanied by diminutive stature, malformation of the head, which is flat at top and spread out laterally; mental imbecility, countenance vacant, devoid of intelligence, physical deformity in various degrees, mouth gaping, tongue protruding, the saliva flowing, bronchocele, brutalized habits, squinting, deaf muteism, blindness.

This disease has never appeared in the United States, although it is common in the low gorges of the Alps in Europe, and depends for its origin on *endemic causes*, which are found in filthy abodes, where the air is stagnant, where the sun never strikes, where the water contains certain deleterious ingredients, calcareous and other mineral substances in solution; and when these causes exist, together with certain co-operating agencies, as poverty, bad food, sensuality, and all forms of degradation, we find this form of physical and mental deformity present. Incompatibility of temperament may also be a cause.

The only course of treatment, so far successful in these cases, has been removal from the predisposing and exciting causes; judicious moral control, careful mental training, pure mountain air, plenty of exercise, nourishing food, the various preparations of phosphorus and iron.

CROUP.—Under this term we usually class two different varieties of morbid action—the *first*, the *false*, *pseudo* or non-membranous, comprising under this head the *spasmodic*, *catarrhal* or *inflammatory* form; the *second*, the *true* or *membranous croup*.

(1) In simple or inflammatory croup, loud, harsh and wheezing respiration, hoarse, croupy cough, sore throat, some thirst, nightly febrile exacerbations, we have a disease that is remarkable for the *suddenness* of its attacks. The little patients may retire well, and in an hour be disturbed from a sound sleep with all the alarming symptoms of croup, but the *suddenness* of its attack, and the cough bearing no resemblance to the metallic cough of real croup, will afford us a sure indication of its nature.

(2) True or membranous croup is ushered in with the ordinary symptoms of catarrh, chilliness, sneezing, sore throat, hot skin, thirst, accelerated, circulated, hoarse voice, impediment in respiration. At an early period the false membrane or exudation may be detected on the tonsils, uvula and pharynx, which gradually increases in thickness and strength, unless the peculiar form of inflammation be arrested. Then, as it progresses, there is an alteration in the cough, which is attended with a peculiar ringing sound, inspiration prolonged and accompanied with a more vivid, or crowing, or piping noise, redness and swelling of tonsils and uvula less marked than in tonsillitis, increased fever, breathing becomes more hurried and impeded, depression with weakness and irregularity of pulse, thirst, irritability and restlessness, features expressive of alarm or distress, patient grasps at his neck, or thrusts his fingers into his mouth as if to remove the cause of suffering, nocturnal exacerbations, remissions towards morning; as the disease subsides, cough loses peculiar twang, becomes moist, crowing inspirations become less, ultimately cease. If death is approaching, drowsiness becomes extreme, sleep is uneasy, child starts and wakes in terror, breathing becomes gasping, interrupted suffocation, congestion of lungs, skin cold, covered with a clammy sweat; death coming directly after an inspiration, asphyxia, coma, convulsions, or fatal dyspnoea from thrombosis.

TREATMENT.—Give aconite, asclepin and veratrum to keep pulse at 70°; then put the patient thoroughly under the influence of: *R.*—Sanguinarin, grs. xxx; lobelia, grs. xxxv; acetic acid, ʒi; simple syrup, ʒi.—*Mix.* Keep away everything from throat, lessen the excessive heat of skin by warm bath and sponging every hour with the alkaline wash.

If the skin be dry, so that the above remedies fail to produce a moisture, wrap the patient up in a blanket wrung out of warm water, and cover all over with two or three dry blankets. If there seems to be a great deal of distress from spasmodic contractions of the laryngeal muscles, belladonna, bromide potass., senega, inhalation of spray of acetic acid, dil. spray bi-chromate potass. of oxygen gas. Diet mild, hygiene thorough, moist atmosphere, never over 70°. Control the circulation positively, never allowing it to exceed 70°, and depend upon the acetic acid and blood-root for the destruction of the false membrane.

CYANOSIS.—A condition characterized by a blue or purplish discoloration of the skin, arising from some deficiency in the construction of the heart, as from the septum not arriving at its full development at birth, or from permanence of the foramen ovale allowing a passage of blood between the auricles, or from origin of aorta and pulmonary artery from a single ventricle, or from contraction of the pulmonary artery—any condition permitting a mixture of venous and arterial blood.

SYMPTOMS.—Blue condition of skin, coldness of body, temperature of the mouth by the thermometer 76° , F. Great dyspnoea, syncope on excitement, violent palpitation; tips of the fingers and toes become bulbous, nails incurvated, imperfect development, dropsical effusions, mostly congenital.

TREATMENT.—This is simply palliative, plain nourishing food, mild tonics, warm clothing, perfect rest, avoidance of fatigue, freedom from mental excitement.

DEAFNESS—May be the result of a variety of causes, inflammation of various forms, otorrhoea, otitis, disease of the nerve, &c.

Nearly all the diseased conditions of the *ear* may be traced to inflammation or its results; hence the necessity of controlling all inflammatory conditions quickly, and not allowing it to pass into any of its terminations.

From the greater delicacy of the membranes of the ear there is a great proneness to congestion, vascularity, and this is liable to occur from cold, rheumatism, retrocession of some eruption, sudden exposure to a low temperature, diving into cold water, irritating substances in the ear.

The dermal structure of the *membrana tympani*, as well as the fibrous structure, very readily takes on inflammatory action from very trifling causes, and this condition is speedily propagated over the whole auditory canal, and we have an abundant muco-purulent secretion thrown out, and if not arrested, ulcerations, thickenings, &c., will be the result.

In acute cases the pain and febrile condition is increased by noise, motion, and a fullness of the mastoid region, and by a careful examination with the speculum we detect tumefaction of the lining membrane of the external meatus, cessation of its ceruminous secretion, thickening of the tympanum. We also occasionally find vesicles, pustules, ulcers, small abscesses, with exudation of muco-purulent secretion, and detachment of cuticle, and ultimately perforation.

In the treatment, inflammatory action must be reduced with promptness, and for this purpose we give *veratrum* and *gelsemin*, stimulating the emunctories; the patient should be kept in a warm room, hot atomized spray to ear.

No membranes of the body are so liable to become the seat of ulcerations after inflammation as the lining membrane of canals that lead to internal cavities. The muco-cuticular lining of the

auditory canal combines both the properties of skin and mucous membrane, performs the office of both, participates in each other's diseases. A morbid condition of the stomach quickly shows itself upon the skin, and more especially upon the delicate lining of the meatus or tympanum.

DEAFNESS due to the peculiar poison of scarlatina affecting the ear is best relieved by remedies that control febrile action, as aconite, digitalis, frequent alkaline sponging, warm vapors to the ear; if the inflammatory condition gives rise to thickening of the meatus and membrana tympani, with otorrhœa, then the application to the ear of the sesqui-carbonate of potassa or iodide potassa, brushed on with a camel's hair pencil brush, followed with lotions of permanganate potassa. Internally, iodine and aluin, as follows: *R.* Fluid extract tag alder, ℥ii. ; iodine tincture, ℥ii. —*Mix.* A teaspoonful thrice daily, general alterative and tonic course.

DEAFNESS often results directly from the scrofulous diathesis. The blood of a scrofulous patient is deficient in all the elements of vitality; it is plastic, and when the inner ear is irritated by cold or damp, the white portion of this plastic blood is thrown out in the fine delicate mucous membrane of the membrana tympani; thickening is the result, the function of the membrane is impaired, and deafness is the sequel.

The only remedies are those that build up and produce a change or modification of the diathesis. The various preparations of phosphorus, iron, iodine, gold; among our vegetable alteratives tag alder and irisin.

DEAFNESS is often due to the *metastasis* of *rheumatism* or *gout* to the membrana tympani. If due to rheumatism there is acidity of the secretions, urine and perspiration, tenderness of scalp, temple, mastoid process, jaw, teeth, distressing tinnitus. Often the cause is unsuspected, and the periosteal inflammation ends in caries, and in intractable otorrhœa.

Our best treatment consists in alkalies, neutralize the acidity, the lactic acid in the blood by alkaline baths, alkaline remedies, iodide potass, macrotys, and keep the secretions active with *R.* Vinum colchicum, ℥ii. ; sulph. quinine, grs. xxx.—*Mix.* Half a teaspoonful every three hours.

DEAFNESS is often due to *gout*. The ear is seldom attacked until the small joints have been frequently invaded. The deafness is invariably preceded by intense headaches, setting in at midnight, the pain is tearing or twisting, burning heat, noises and singing in the ear, swelling and redness, often incrustations or concretions, or deposits of urate of soda found in the ear.

Our means here are alkaline baths, colchicum and quinine, carbonate of lithia.

DEAFNESS may be due to some organic change, as perforation of the membrana tympani, lesion of the nervous system, sometimes in the expansion of the auditory nerve, some defect in its origin, or in the brain.

DELIRIUM TREMENS—Is caused by the poisonous influence of alcohol on the brain, producing induration of the substance of the brain so great that it forms an impassible barrier to the reception of nutrition, to the permeation of its substance with blood, giving us not only a true *induration*, but *genuine anæmia of the brain*. Hence, when we have the disease, the skin and head is cool and moist; pupil contracted; conjunctiva pale; mental derangement; expression of countenance wild; eyes fixed intently upon some imaginary object; constant endeavors to avoid them; motions sudden and rapid; tremor of the hands, limbs and tongue; tongue flabby and moist; pulse nearly natural; constant desire to move about; inability to concentrate his thoughts for any length of time; perfect inability to sleep; mind wandering and delirious; general appearance of debility; sleeplessness incessant; appetite absent; constipation; delirium aggravated towards night; incessant talking; constant tremor and twitching of muscles; great prostration; remarkable diminution of phosphates. All these symptoms depend upon an anæmic condition of the hemispherical ganglion.

The cause is the excessive and protracted use of alcohol. This poison has a specific action upon the brain, first producing an inflammation of its substance, and a long-continued condition of hyperæmia induces induration and anæmia.

The indications of treatment are very plain. We must subdue the undue excitement of the nervous system which is rapidly wearing out the vital forces. This is to be done by gelsemin and elixir valerianate of ammonia. We must support the exhausted vital powers by stimulants and food; and we must purify the system from the alcoholic poison. A partial arrest of the functions of the brain by this poison causes an arrest of the organs of secretion and elimination; then the body becomes a source of poison to itself, the excretory functions are imperfectly performed; the urine is no longer secreted freely; urea, which is a poison in itself, accumulates in the blood; the bile accumulates; there is a general poisoning of the system.

To meet this condition, I have derived most salutary results from mild emetics to begin with, of equal parts of the fluid extracts of lobelia, boneset and capsicum. After the action of the emetic, a general warm alkaline bath; then put the patient to bed and give him stimulants in alternation with gelsemin, and plenty of liquid, nutritious food.

All stimulants here are beneficial. I am partial to capsicum in from twenty to thirty-grain doses every three hours—our best diffusive stimulant in anæmia of the brain. Generally after the first dose the patient falls into a refreshing sleep. Alternate the capsicum with gelsemin, which has a decided effect in removing the induration and allaying the tremor. Capsicum has a direct influence on the gastric expansions of the vagi, and through them upon the cerebro-spinal centres. The phenomena of the disease point to the simul-

taneous existence of stimulation and paralysis, of opposite portions of the nervous system. The capsicum and gelsemin have decided advantages over all other remedies. Fluid nourishment, beef tea, milk. Apartment should be kept quiet and dark. All sources of mental irritation to be promptly removed. Cold affusion, cold shower-bath are useful during convalescence. Other remedies I have frequently used in delirium tremens, but never with so much success as the above remedies.

Ammonia is also a good remedy. *Nux vomica* is excellent during the stage of convalescence. Belladonna is best adapted to those cases where the habit is plethoric and the face flushed. *Stramonium* and *hyoscyamus* are well adapted to cases of great irritation. Chloroform internally may always be used with advantage. *Cimicifuga* is well adapted to those cases of nervous excitement with threatened spasm. Digitalis in large doses acts like gelsemin, but not nearly so beneficial. Indian hemp excellent in the convalescing stages.

If sleep cannot be procured, subcutaneous injections of morphia, gr. $\frac{1}{2}$ to a drachm of water.

The best preventive is lobelia, given at any time. It stimulates the whole system, equalizes the circulation, promotes deranged secretion.

DENTITION.—There is generally very little distress connected with teething, provided the child is in good health. The parts which stand in the way of the eruption of the tooth may be removed in such strict accordance with the rate of growth and outward progress of the tooth—growth and waste may be so nicely balanced, that the subject of these changes suffers no inconvenience. The only symptoms observable during the fifth and sixth months of dentition, are a slight pain and tension in the gums, with increased flow of saliva, a slight diarrhœa and increased sensibility of the nervous system. In children of less favorable constitutions, the natural process of dentition is liable to be seriously deranged.

The complicated apparatus by which the teeth are to be formed, consists of a vascular and nervous pulp, covered by a very delicate membrane, and these again are invested by a fibrous membrane of very firm texture, composed of two distinct layers. The body of the tooth is secreted by the fine membrane of the pulp, and as the ossification advances from within outwards, the cavity occupied by the pulp is contracted until reduced to the dimensions of the hollow of the perfect tooth. As soon as the ossification is completed, the inner surface of the fibrous coat takes on the office of secretion and furnishes the tooth with its covering enamel, and when this is completed, the fibrous membrane is no longer of any use, and must be removed to give way and permit the tooth to advance above the gum.

The removal of the investing membrane is accomplished by the

action of the absorbent vessels and the increased flow of saliva, and the increased flow of mucus from the bowels carry off the effects of increased excitement. In a state of disease, the growth of the tooth may be irregular, and, pressing against the investing membrane, cause irritation and inflammation. The gums become red, tumid and painful. From this point of irritation, a similar state of excitement* extends to the stomach and bowels, and is also conveyed to the brain, and thence, by reflex action through the nerves, transmitted to distant parts of the alimentary canal, producing the symptomatic vomiting, follicular diarrhœa, fevers and convulsions which are so common and so fatal to children who encounter the dangers of the second summer. Thus, almost any disease of infantile life, may be excited by the irritation of dentition. When the irritation runs high, we have diarrhœa, attended with severe griping, urine discolored and scanty, skin dry and hot, pulse rapid and fluttering, countenance extremely anxious, and, very often, all the symptoms of pneumonia. When the brain is affected, we have dilated pupils, moaning, continued moving of the head, convulsions.

TREATMENT.—If the child possesses an organism ordinarily healthy, very little is required more than alkaline baths, good nourishing diet and fresh air.

The local irritation often furnishes its own remedy, by exciting the salivary glands to greater action, secreting an unusual amount of saliva, which diminishes the febrile action and gives relief.

Where we find slow or retarded evolution of the teeth, with signs of local irritation and constitutional disturbance, with disorder manifested, especially in the digestive organs and nervous system, occurring in weak or over-fed children, our treatment should be directed to restoring the system to a normal and healthy condition.

For this purpose we would recommend the syr. of hypophosphites of soda, lime and iron, alternate with leptandrin and nux vomica, or the following:—*R.* Glycerine, $\mathfrak{z}\text{iv}$.; Phosphoric acid dilutum, $\mathfrak{z}\text{ii}$. —*Mix.* Sig. Half teaspoonful every three hours, or lime water and milk.

Where there is fever and restlessness, cough and oppression of the chest, head and hands hot, nausea, vomiting and diarrhœa, our best agents are belladonna, aconite, pulsatilla. If there is excessive febrile excitement, gums extensively swollen, diarrhœa discharges, (slimy, watery, bloody,) spasmodic motion of the eyes, child starts suddenly and screams, as if frightened, convulsions, nausea, vomiting, abdominal spasms, free scarification of the gums, not only to the apex, but the scarification should be applied to the base. Whilst there is fever, restlessness, a tendency to spasm or convulsions, the cutting of the gums is justifiable. Make the incision towards the external alveoli, so as to avoid injuring the membrane and sacs of the permanent teeth, particularly those of the incisors and cuspidati. At the same time give antispasmodic tincture suffi-

cient to control spasmodic action, and follow with hyoscyamus, aconite, belladonna, cannabis indica, bromide potassium.

Toothache.—Toothache from Caries.—The nature of the disease is yet but imperfectly understood. In one it is assumed to be no disease whatever, but merely the result of chemical decomposition; in the other, the result of morbid action upon a vital organism. In many families we find a hereditary tendency to caries of the teeth. Inflammatory diseases of infancy and childhood operating on the pulp of the teeth are more disastrous to the young and tender texture than any other cause, except mercury. The effects of this deadly mineral is the most destructive of all the causes of disease of the teeth, not only causing the teeth to decay, but an actual destruction of gum substance, the sound teeth becoming loose and dropping out. May be the result of malformation of the enamel and bone, of pregnancy or of depraved secretions, with dyspepsia.

TREATMENT.—Plugging the teeth, in some persons, may save them from ten to thirty years. It is, however, a great error to suppose that filling will, under all circumstances, permanently save the tooth. Some are disposed to regard the decay of a tooth which has been filled as the result of want of skill or of care in the operator. Such an opinion is perfectly untenable when the character of the operation is considered in connection with the tissues which are involved, and the various conditions under which disorganization may be effected. We can, for the time being, arrest the disorder, but it may reappear in some other part of the tooth, or in the enamel in the immediate vicinity of the plug. The ultimate success of an operation will, in great part, depend upon the skill with which it is performed, but it will not depend wholly upon the operator.

LOCAL REMEDIES.—In caries of the teeth, where the central cavity and vessels become exposed, creosote is one of the best agents. It does not exert any curative power over the destructive caries, only to alleviate the present symptoms. Equal parts of arnica and creosote, acting as a stimulant, will be found very effectual in relieving the pain of an exposed pulp. For the purpose of destroying the pulp, the following will be found almost a specific. **R.**—Arsenic and morphia, $\bar{a}\bar{a}$; creosote, q. s. to make into paste. My mode of using is to wet a small quantity of lint with tinct. camphor, creosote, aconite, belladonna or chloroform; lay upon one side a small portion of the paste and insert it in the cavity of the tooth, cover the lint with a small piece of wax, leave in two days, remove and fill the cavity with lint or wax until the inflammatory symptoms subside, then plug with gold or other filling. In this way I have often saved from extraction many a condemned tooth.

Toothache from Necrosis of Fangs.—The crown and cervix may be healthy, and yet the fangs necrosed. Abscess may form, or there may be thickening of fang from bony deposit. The very exposure of a fang from recession of the gum causes severe pain.

TREATMENT.—Extraction. Sensibility of an exposed fang may be greatly relieved by painting with carbolic acid.

Toothache from Neuralgia.—An inflammatory condition of a nerve, or its sheath or lining membrane, is most invariably due to the following predisposing causes: the poison of rheumatism, the poison of mercury, and poison of syphilis. Neuralgia, due to the presence of the rheumatic poison—pain intense in the teeth, face and ears; more severe in the evening after lying down; gums hot and swollen, feel as if ulcerated; erysipelatous swelling of the cheek, dryness of the mouth, thirst; tooth feels elongated, urine acid, acid perspiration; best cured by alkalies, colchicum and quinine, macrotys, &c. When due to mercury, is best removed by iodide potassium, sulphuret potassium baths.

Gum-boils.—Usually caused by the irritation of decayed fangs; they occasionally occur on the periosteum of sound teeth.

The tooth is raised from its socket, becomes loose and feels too long; due to inflammation and thickening of the periosteum. The inflammation then rapidly extends to the surrounding parts, causing swelling of the face, with severe pain, followed by suppuration. The removal of the diseased tooth, which acts as a foreign substance causing irritation, is all that is required, generally, to effect a cure. If pus is already formed, make free incisions near the diseased tooth. If the gums remain inflamed and spongy, caused by an accumulation of tartar, remove with instruments, brush, salt and water, allowing the gums to bleed freely, and a cure will soon be effected.

Inflammation of the Dental Pulp.—A diseased condition of the pulp, whatever may be the nature of the disease, is generally consequent upon the pulp cavity being laid open, either by the destruction of the walls by caries, or by injury of the crown of the tooth, or by mechanical violence. In most cases the tooth becomes sensitive and painful by changes of temperature, by the contact of hot or cold fluids, and even slight pressure upon the crown of the tooth. Patients will often complain from pressure, during mastication, also, by pressing upon the injured part with a steel instrument. The disordered state may depend upon some other tooth, which, although free from pain itself, may produce sympathetic irritability in other teeth, or upon a cause which may have a constitutional origin. The earlier stages of cold, rheumatism of the jaw, or the presence of mercury in the system, are frequently accompanied by an irritable state of the teeth. A similar course of symptoms will sometimes follow the plugging of a simple cavity in teeth which have been in an irritable condition prior to the operation.

For the relief of this disease we may employ astringents, as tannin, or a solution of gum resins in alcohol; belladonna, when the pain is of a neuralgic character. An admirable mixture is made by combining equal parts chloroform, laudanum, creosote, tinct. aconite, tinct. iodine; hyoscyamus, when the pain is violent, tear-

ing, extending to the cheek and forehead, swelling of the gums; aconite, when the disease is excited by a recent cold, fever, congestion of blood to the head, heat in the face, redness of the cheek and great agitation. Other remedies, as phosphorus and silicea; iodine, in scrofulous subjects, who have taken much mercury; nitric acid, in cases connected with syphilis.

EXTRACTION.—The very general adoption of the forceps renders it unnecessary that we should discuss the comparative merits of them over that of the key. In extracting a tooth, the following conditions should be fulfilled:

1st. The whole of the offending organ should be removed. 2d. Its removal should be effected with as little injury as possible to the structures in which it is implanted. 3d. The patient should be spared all unnecessary pain in the operation.

The method by which a tooth, or the remains of one, can be removed most certainly and quickly, and at the same time with the least amount of injury to the adjoining parts, will also be attended with the least suffering to the patient. The operation of extracting with the forceps is divided into three stages.

1st. The seizure of the tooth. 2d. The destruction of its membranes in connection with the socket. 3d. The removal of the tooth from the socket.

It will be of great service to the operator, and also to the patient, that strict attention be paid to these stages, and that each be well and efficiently executed before proceeding to its successor. In seizing a tooth, the jaws of the instrument should be closed lightly on the tooth, and inserted under the free edge of the gum and then forcibly driven down to the edges of the alveoli, or even a short distance within them. I say forcibly, because all beginners, and even some practiced in the use of forceps are liable to failure, because they do not use sufficient force; they seize the gum instead of the edge of the alveolus. The beginner should lay hold of the tooth as far down towards the fangs as the instrument can be passed. The forceps having been well pushed up towards the alveoli, and the tooth firmly grasped, then by a firm and steady turn of the wrist, twist the tooth in its socket, and, so soon as it is felt to yield to the force, it may be withdrawn with little effort.

The most generally useful instrument for extracting the roots of the teeth is the elevator. The instrument consists of a blade terminated something like a spear-head, and a stout shaft mounted in a strong handle. In operating, an elevator may be employed as a simple lever. The edge of the blade having been made sharp, it is thrust down between the root of the tooth and its alveolus; the handle is then depressed, with a slight rotary movement, and the tooth is raised from its socket. An elevator may, however, be used otherwise than as a lever. If, for example, the root of a bicuspid on the right side of the upper jaw requires removal, the operation may be performed in the following manner. Let the patient's

head be well thrown back, and the upper lip raised by the forefinger of the left hand. The point of the elevator should be passed up between the gum and tooth, until a sound portion of the root is reached. At this point the extremity of the instrument should be pressed into the tooth sufficiently to take a firm bearing and the handle of the instrument at the same time brought up to the side of the cheek, when, by steady pressure, the root may be pushed from its socket.

The most desirable apparatus now in use for the purpose of aiding the operator in removing teeth with little or no pain, is Richardson's, with bifurcated tubes, designed to deliver spray on both sides of the gums at the same time. It is all that is required for producing local anæsthesia by freezing, with rhigoline or ether. The former we think the least objectionable, as it acts promptly and does not produce nausea.

To arrest bleeding of the gums after the extraction of a tooth, plug the cavity with cotton, saturated with some astringent, as tinct. hamamelis, a solution of tannin, perchloride of iron or carbolic acid. If these fail, make a plug of cork, same size as tooth extracted, arm it with cotton saturated with oil of erigeron, insert into the bleeding cavity, and compress the teeth above or below the plug.

For pain and swelling following the extraction of teeth, give arnica, or aconite and belladonna in alternation, hyoscyamus.

DIABETES.—An affection of the system dependent upon a disordered state of the digestive organs, with a defect in the assimilating functions, and characterized by a secretion of a large quantity of urine containing glucose or grape sugar. In this disease starch is converted into sugar, which passes into the blood and urine.

The primary cause of diabetes consists, first of all, in a morbid condition of the digestive and assimilative organs, which favors the formation of sugar from the starchy or farinaceous substances, introduced into the alimentary canal, and its absorption into the blood and urine.

The function of the stomach is more complicated than all other organs,—it is liable to be disturbed by various natural and artificial circumstances which operate upon the human organism, and in this disease a disordered state of the digestive organs is a primary symptom, as indicated by the uneasy sensations in the stomach after eating, impaired or increased appetite, eructation, nausea, vomiting, dryness of the mouth and tongue.

The digestive apparatus elaborates thoroughly and perfectly in health a certain amount of chyle, and the assimilative organs take it up and appropriate it in a certain manner for the purposes of the economy. Let this apparatus be impaired, suspended, or increased by either moral or physical causes, and we have abnormal

elaboration. The beautiful harmony of healthy alimentary digestion may be disturbed through the nervous system, or by agents acting directly upon the part. Mental emotion, grief, anger, fear, disappointments, the depraving passions, often suspend both digestion and assimilation. Drugs, stimulants, tobacco, tea, sedentary habits, fatigue, want of sleep, vitiated bile, acids, indigestible food, are apt to impair the function of healthy elaboration of the food.

Its progress is insidious, but progressive; general feeling of depression, feverishness, and excretion of a large quantity of urine of an apple-like odor and a high specific gravity, 1035—1050; the thirst is intense, appetite voracious, still the digestive function is perverted, the aliments are imperfectly converted into chyle, a superabundance of saccharine matter is elaborated, while the activity of the absorbents is remarkably increased, dryness and harshness of the skin, constipation, hardened fæces. There is a general breaking down of the health, extreme muscular and nervous debility, loss of procreative power, pain in the loins, coldness of extremities, burning of the palms of the hands and soles of the feet. Debility persistent and increasing, a decrease in weight, wasting of the whole body, œdema of the extremities, and in the later stages, albuminuria. The breath has a chloroform-like odor; sponginess of gums, decay of teeth, mental depression, and irritability. A sense of sinking at stomach, with voracious appetite, tendency to cataract, boils and phthisis. Death results in the large proportion of cases from the supervention of some other disease, as bronchitis, pleurisy, pneumonia, gangrene, or exhaustion.

That farinaceous ailments are converted into sugar in the stomach of diabetic patients is evident from the fact that traces of it have been detected in the matters vomited after the use of farinaceous food. The digestive functions have lost their faculty of elaborating healthy chyle, that starchy substances on the stomach are converted into sugar by the various juices present in the process of digestion, and are absorbed into the blood either in this form or after having been converted into lactic acid.

Sugar can in all cases be detected in the urine by either of the following tests:

To detect sugar in the urine.—The three best tests for sugar in urine are those known as Moore's test, Tromner's test, and the fermentation test. Moore's test consists in boiling urine for five minutes in a tube, with half its bulk of liquor potassæ; if sugar be present, the liquor assumes a brownish lustre color. Tromner's test consists in adding a few drops of a solution of sulphate of copper, so as to give the urine a pale blue color, liquor potassæ is then added until the hydrated oxyde of copper thrown down is again dissolved, which will happen if the urine be saccharine. The clear deep blue solution which is formed must now be boiled, when, if sugar be present in very minute quantity, it will be indicated by the mixture assuming a yellowish red opalescent tint; but if in

large amount, by its becoming perfectly opaque from the formation and precipitation of the yellow sub-oxide of copper. If the urine contain no sugar, a dark green precipitate only is formed on ebullition.

Fermentation Test.—A few drops of yeast should be added to the urine, and a test tube completely filled with the mixture invested and allowed to remain in a saucer containing a little more of the urine. The whole should then be put in a warm place, of about 70 or 80 degrees, for twenty-four hours. Fermentation ensues and carbonic acid is formed, which collects at the top of the tube, displacing the fluid.

The following solution is very useful when many observations are to be made for the detection of grape sugar in the urine. Take of bitartrate of potash and crystallized carbonate of soda, of each 150 parts, of caustic potash 80 parts, of sulphate of copper 50 parts, and of water 1,000 parts; dissolve the carbonate of soda and potash in part of the water boiling, then add the sulphate of copper, powdered. When all the bitartrate is dissolved add the rest of the water, and filter. A few drops of this solution added to a little urine in a test tube will, under the action of heat, throw down a dirty green or yellow precipitate of sub-oxyde of copper, if sugar be present.

It has been clearly proved that a large, if not all cases of diabetes depend upon a diseased condition of the brain, more particularly some change in that part where the pneumogastric nerves originate, and if this is so, the case is more of an organic character.

The quantity of urine passed by a diabetic patient varies considerably, from a few quarts to as many gallons in the twenty-four hours.

Whatever pathology we adopt, there can be no doubt at all but when the disease is developed but that there is a marked diseased condition of the brain, and I am perfectly satisfied that this is the predisposing cause in every case, hence the frequency of cures by phosphorus, by alteratives, and remedies that improve brain tissue.

TREATMENT.—In this diseased condition we have a perverted action of the digestive apparatus, depending upon some disease of the brain, whereby the healthy action of the pneumogastric and other nerves are impaired or partially suspended, and the organs which they supply with vital stimulus do their work imperfectly, as is demonstrated by the conversion of starchy substances into saccharine, and thus affords material for the perpetuation of the malady. A rigid course of dietetics here is highly important. A rigid and careful avoidance of all saccharine or starchy articles of food should be scrupulously observed, while, at the same time, a most nutritious diet, consisting of beef, mutton, venison, fowl, game, fish, and articles of this character. If the patient can afford it, a sea

voyage, if not, salt water baths daily. The free use of small pieces of ice to allay the incessant craving for drink. Gluten bread, that is, bread made of flour deprived of its starch, eggs, oysters, milk, any vegetable that does not contain feculent matter may be allowed. The body should be carefully protected with flannel. Exercise should be in the open air, never to fatigue. The medicinal remedies in this disease consist in a judicious use of tonics and alteratives; our special remedies consist of *quinine*, *phosphorus*, *nux vomica*, *nitro-muriatic acid*, *belladonna*, *benzoic acid*, *rhus radicans*, *hydrastin*, *populin*, *creosote*, *permanganate potassæ*.

Sesqui-carbonate ammonia, in five grain doses, acts well in numerous cases, it should be alternated with the phosphate of quinine.

Oxygen in the form of the permanganate potassa is of essential service, marked improvement resulting in every case where it is given; begin with $\frac{1}{4}$ grain and increase to 2 or 3 grains, every four hours, and alternate with hydrastin.

If we hope for success, perseverance, and addressing all our remedies to the brain instead of the stomach, or liver, or kidneys, is the grand point to be observed. Glycerine and phosphoric acid, or cod liver oil and iron improves the general condition of the patient. Pepsin often benefits. Iron is always indicated, iron by hydrogen is the best form of chalybeate.

An emetic may be good at the start, so may a purgative; but never afterwards. On each side of the cervical portion of the spine the irritating plaster should be applied, one inch square, spread fresh daily.

DIARRHOEA.—If the absorbing power of the intestines is defective, the consequence is an excess in the quantity of matters that pass through them; that which ought to be taken up is carried along and constitutes a diarrhœa. It may depend on a variety of causes, as a relaxed condition of the bowels.

The arrest of function, as declared by the character of the stools, constitutes the best division of the disease, and accordingly we speak of it, as feculent, bilious, serous, dysenteric and chronic diarrhœa.

Feculent Diarrhœa.—A very common form of diarrhœa among over-fed or over-indulged children, or among adults who eat an excessive quantity of food.

The characteristic symptoms of this form of diarrhœa are looseness of the bowels, with or without griping pain; frequent discharges of feculent or thin, watery, secreted or undigested matters, sometimes acid, sometimes fetid and fermenting.

This condition is usually accompanied by partial or complete loss of appetite, pain in the stomach, swelling and tension in the lower part of the abdomen, cold dry skin, thirst, urine scanty, nausea, straining, weakness, fainting.

The discharges are painful or painless. The secreted discharges are mucus or serous or purulent, of different colors and odors.

CAUSES of this form of diarrhœa are dentition, worms, irritating indigestible food, green vegetables, depressing influences, sudden changes of temperature.

For the diarrhœa, which supervenes during dentition, an excellent remedy is the neutralizing cordial alternated with small doses of leptandrin. Warmth, farinaceous diet, a spice plaster over abdomen, and over all a roller. A daily salt-water bath.

In this form of diarrhœa among infants, look to the teeth. The state of the bowels often depends on reflex irritation from the dental nerves. The removal of the cause of course is indicated.

If the diarrhœa is caused by indigestible food, give an emetic—comp. tinct. lobelia—follow with teaspoonful doses of the white liquid physic, and if the case does not progress favorably under this remedy, with the recumbent position and stimulating applications over abdomen, give leptandrin.

This remedy is of the highest value in diarrhœa, and may be used with distinguished success in all forms of diarrhœa caused by irritation.

The diet is an important element—it should be such as does not require a perfect state of the digestive organs for its absorption, while it affords the patient nourishment.

The best agent is milk and lime-water. The alkaline milk diet is the one that meets the indications precisely.

Bilious Diarrhœa.—This is the next simplest form of diarrhœa. Bile, if thrown out profusely and not concentrated by the intestinal absorption, adds largely to the amount of matter thrown off. This happens when the absorbing powers of the intestines are arrested by cold, irritation, mental emotion; it occurs also from congestion of the portal system in hot latitudes in patients of a bilious or phlegmatic temperament, this causes the bile to be at times deficient or poured out in excess. Irritation of the stomach or duodenum, causes it to be retained in the liver and gall bladder till it is unfit for absorption.

Our best aid to diagnosis is the smell—in bilious stools the odor of the hepatic secretion can always be perceived in spite of the feces mixed with it; and, at the same time, it always prevents putrescence of indigested aliments; while in the grass-green stools the smell is not bile, but more or less putrid. If the discharges are mucus or slimy, or sanguineous, our best remedies are nitro-muriatic acid, ipecac., podophyllin.

Serous Diarrhœa.—In this form there is an increased exhalation of aqueous fluid from the blood-vessels of the intestines, as well as an arrest of its absorption. This form of diarrhœa indicates a congested state of the venous plexus of the alimentary canal, and a consequent morbid proneness to exhalation and deficiency in

absorption. The vitality of the mucous membrane is deficient, and if it is not restored, ulceration is the result.

Our treatment here would be to watch the diet, keep a stimulating application over the abdomen, recumbent position; give the patient: *R.*—Comp. tincture cinchona, ζ iv; nitro-muriatic acid, ζ ii.—*M.* A teaspoonful every three hours, and alternate with gelsemin and cranesbill. Bismuth is often advantageous. We always derive benefit from nux vomica, especially when combined with rhubarb and leptandrin. The benefit of nux vomica is by stimulating the nervous energy of the bowels.

Muco-Purulent Diarrhœa.—Dysenteric where not only water is in excess, but where we have the presence of mucus or pus mixed with it; in which, also, there are seen shreds of fibrin, blood-globules, flakes, the peculiar epithelium of the bowels. The fluid in muco-purulent diarrhœa is always highly alkaline.

Chronic Diarrhœa.—This form of diarrhœa is said to exist when either of the forms run into a chronic type, very common among the scrofulous. Ulceration of the bowels and bloody diarrhœa are often an attendant. Putridity of the stools in this form of diarrhœa, shows that there is an imperfect quantity of bile in them; one of the functions of the hepatic secretion being to prevent the decomposition of albuminous matter.

DIETETICS.—When the stomach fails, leave the digestion, as much as possible, to the intestines. This rule is applicable to cases of weight and pain after eating, heartburn, acidity, hæmatæmesis, vomiting of unaltered food, and fermentation. Should the combined symptoms enable us to diagnose gastric ulcer, mucous flux, cancer, or any other more definite anatomical change, the application is all the more imperative. Spare the stomach both its *mechanical* and its *chemical* toil. The first being the hardest is the most necessary to be avoided. A meal—the laying in of victuals to avoid future rather than present hunger, is a labor, even to the healthy; and ought never to be imposed on a sick stomach.

Proper dilution of the meal is necessary in order to spare the organ, in cases of slight indisposition. Copious watery drinks carry the food on quicker through the pylorus, and afford great relief to over-sensitive, irritable stomachs. On the other hand, it must be remembered that thus the time for the action of the gastric juice is shortened, and its chemical strength lessened, so that the work of the intestines is augmented. Hence, it is better to let this dilution be practiced as long after the meal as the case admits of. This dilution should be avoided where an obstructed circulation impedes absorption of the water by the portal veins. Patients with dilated heart, and some cases of anæmia and of diseased liver suffer much inconvenience from a sloppy diet. It should be sedulously avoided by obese persons; it washes away the albumen which

they require, and allows the absorption of fat, which they are better without.

The chemical toil of the stomach may be spared by giving it less to digest, and more to digest with. Do not destroy its functions by solid lumps of albuminous food. Whey is the best form of nitrogenous aliment, or milk prevented from coagulating by a copious admixture of lime water. This fluid food will pass through the stomach unaltered, the gastric juice will trickle through the pylorus at its leisure after it, and with the intestinal juice will digest the casein in the intestines. Soup is next in point of solubility; but it must be fresh, that it may not decompose; weak, that it may be easily absorbed; made at a low temperature, that it may not be filled with innutritious gelatin, or with hard boiled albumen. Meat is suitable in proportion as it is soft, easily disintegrated, quickly cooked, and free from fat, which might oppose the soaking in of the gastric juice.

It is more useful to be furnished with the principles of selection than a mere experimental enumeration of the articles themselves. It is an irrational practice to mix starchy food with the albuminous in cases of weak digestion. It soaks up the gastric juice, but makes no use of it; for starch is quite unaltered by the pepsin solvent. Besides, if taken in quantity sufficient to assist much as a nutriment, it is too bulky, and being converted into sugar by the saliva, turns acid in a mass, and arrests further digestion. This is especially the case if it is in solid coherent lumps, such as potatoes, soft bread, pastry and the like. Starch food is quite a different thing unmixed with albuminous. There are some cases of gastric disorder which are much benefited by a temporary adoption of such a diet.

It is best during acute catarrhal bilious attacks, at the commencement even in the treatment of chronic gastric disorders; such cases are also much benefited by a temporary adoption of such a diet; also, whenever a dusky complexion, hypochondriasis, or general distress, show that arrested digestion has caused a collection in the body of effete tissues.

The putting the patient on simple starchy diet does good as a temporary and partial starvation in rheumatic fever. In such cases, I allow the patient nothing for a day or two but arrow root, panada, tapioca, gruel, and the like. This gives the congested portal system time to disembarass itself, so as to leave a clear space for the reception of fresh supplies.

Let the morning and evening diet be vegetable, allowing several hours to pass before and after a mid-day meal of purely animal food. Thus spare the stomach by giving it *less to digest*. A little food *digested* goes much further than double the amount only swallowed. But spare it also by giving it more to digest with, by supplying an artificial gastric juice.

When the small intestines fail, spare them. This particularly

applies to continued low fever, to enteritis, diarrhoea, and cholera, in acute diseases; and to ulceration, tubercular deposits, either in the peritonæum, Peyer's glands, or mesentery; and secondarily, to disease of the liver.

The small intestines absorb all matters soluble in water and capable of endosmosis, and they have all the mucous membrane of the alimentary canal to assist them. Before absorbing sugar they convert it into starch, in conjunction with the saliva and pancreatic juice. They dissolve albumen, and convert it into peptone, in conjunction with the stomach. But in the digestion of fat they have none to aid them.

It is obvious, then, that all fats and oils must be excluded from the dietary of patients affected with these diseases.

I have known the leaving off butter render a previously ineffectual treatment immediately successful. Starch will only agree in small quantities, and when the saliva is in a state to do alone what generally it has the small intestines to help it in performing. If the secretions of the mouth are deficient, it will not agree. Under these circumstances, when amylaceous food is eaten it will be found unaltered in the fæces, and frequently causes considerable aggravation of the symptoms. On the other hand, a phthisical patient, with a clean moist mouth, will usually digest such things well, in spite of his ulcerated bowels, provided they are well chewed and not lumpy.

Amylaceous food is exceedingly useful as a placebo to persons requiring to be kept on low diet, such as rheumatic fever patients, for example.

Albuminous food will agree, provided the stomach is doing its duty, and the food prepared so as to require only a short time in digestion.

Frequent dilution with watery drinks, and the use of artificial pepsine, are highly useful in these cases, so as to insure the absorption of the food as quickly, and as high up in the intestinal canal as possible.

Dilute with water where you wish to hasten absorption. This is due to the laws of osmosis, the principles of which are too well known to require an allusion being made to them here.

The rule finds its chief application in acute febrile diseases, although it should not be overlooked in ulceration of the alimentary canal and other local ailments, where protraction of the process is painful, or in emaciation and convalescence, where we would not wish to waste time, but to give the patient all the nutriment possible in the day.

When you wish to delay absorption, dilute with solids.

For solids to act as diluents, they must be incapable of absorption; and the substance I principally refer to is cellulose in its various forms of chaff, bran, husks, skins, seeds of fruit, and fresh green vegetables. Cellulose, being incapable of chemical changes

there, passes unaltered through the alimentary canal, carrying with it, first the chyme prepared for absorption, and then adding its bulk to the fæces excreted. Thus the absorption is spread over a longer time and a larger surface of mucous membrane, the whole of which is brought equally into work. Moreover, the peristaltic wave acts with more regularity when it has a solid to propel than when the contents of the tube are fluid only. Many persons are made ill by their diet being more immediately digestible than they have been used to. Scotch laborers on exchanging oatmeal for wheat flour, and country persons on coming to New York or Philadelphia, often suffer from this cause. Prevention is obvious and cheap; cabbages, brown bread and fish, offering types of remedies, readily altered according to taste.

The same rule sometimes holds in reference to the administration of medicines: thus, quinine occasionally will not agree where powdered bark or decoction of bark will yet succeed very well; and so with the soluble and insoluble salts of iron, morphia and opium. I believe the secret is, that a slower and more graduated absorption is gained.

A gradual return to the normal condition in quantity and quality, when the diet has been diminished. It is universally admitted that a convalescent diet should be "light" at first, and afterwards more "substantial."

Foods are divided into such as are capable of direct absorption without change, and such as require a previous change by the digestive juices. By subdividing the latter class into such as require only direct chemical change, and such as require disaggregation, we get three groups of aliments. The first group necessitates but one physiological act; the second, two acts; and the last, three; and consequently, in that order, demand a proportionate amount of labor from the system.

The following substances belong to the first group, viz: water, essential oils, tea, coffee, alcohol, ethers, salts, sugar, whey, gravy. Asses' milk, with its small quantity of butter and casein, and its large allowance of sugar, forms a transition, through cow's milk, to the second class. In the second class may be ranked consommé soup, lightly cooked eggs, well boiled liquid starch. In the third class, oysters, sweetbread and boiled chicken come nearest to the second, while the power of digesting hard meats, such as beef, or solid lumps of starch, such as potatoes, shows that the normal strength of digestion has been regained.

Before the full powers of digestion are regained, care should be taken that all albuminous food be not overcooked. Too great heat renders albumen absolutely insoluble.

DIPHTHERIA.—An epidemic and contagious disease, depending upon a specific poison which primarily acts on the nervous system, as is shown by the vital depression, loss of power, and secondarily

on the blood, and characterized by the exudation of false membranes on tonsils and throat.

The peculiar morbidic poison seems to find a favorite sphere of action among strumous, syphilitic, psoric, or other broken down constitutions.

The characteristic symptoms of diphtheria are, the patient is seized with violent vomiting of a thin, yellowish, white matter, of extremely offensive character, and perhaps purging of a like fluid. This is usually followed with prostration and stupor. The skin is hot, pulse 100 to 140; tongue bright red; great thirst; drink taken with great greediness.

The odor of the breath is very characteristic and peculiarly offensive. It is infected by a specific zymotic poison operating on the secretions of the part affected, as well as the blood and nervous system.

The appearance of the throat (the tonsils, soft palate, back of pharynx,) present a white shining appearance, a tenacious fluid hangs from the vellum to the tongue, and the same gelatinous substance covers all the back portion of the throat.

After a few hours, the condition of the patient changes, the stupor passes off and delirium takes its place, high fever, quick breathing, shrill voice, cough, croupy symptoms; neck swollen and flushed, tongue coated, first in whitish spots, which conglomerate and form one thick plastic deposit.

If remedies do not act and the case progresses, the delirium subsides, the vital forces fail, choking and suffocation come on; the sufferer tears at his neck with his nails and tries to open his mouth, retains power of swallowing; purpuric spots on the extremities, muttering delirium, convulsions and death.

The diphtheric poison, when once introduced into the human system, has two special and peculiar affinities, one to the nervous system, and the other for the blood, and through that agency to the mucous structures. Diphtheria has a tendency to invade the respiratory passages, the nasal fossæ, the larynx and the trachea. Its characteristic feature is the effusion of the peculiar plastic fibrinous material, in appearance resembling wash leather, thrown out in spots, which quickly coalesce, and when united gradually increases in consistency and thickness, firmly attached to the mucous membrane beneath, and if forcibly removed, a new patch instantly forms, and spreads to all the surrounding parts. When this membrane separates and begins to decompose, the breath becomes horribly offensive. Its disappearance may be followed by ulceration, sloughing, gangrene, or resolution.

Diphtheric patches have been detected on various parts of mucous membrane, as the conjunctiva, vagina, rectum.

The peculiar action of this virulent poison on the blood is to destroy its fibrine, hence hemorrhage is not uncommon, from the nose, fauces, bronchi, purpura, albuminuria, death from exhaustion,

hemorrhage, gangrene, asphyxia. Embolism sometimes a complication. Recovery under the best treatment is slow and tardy, there is generally persistent anæmia or leucocythæmia. The secondary affections are, flabby heart, nerve affections, paralysis, neuralgia, and amaurosis from exhaustion. If seen in the early stage there can be no doubt of the utility of an emetic of compound tincture lobelia. This is never indicated later. A spirit vapor bath, a general sponging every three hours with water medicated with hydrochloric acid; diet, essence of beef, white of egg, cream, wine and beef tea, brandy, and, if the patient can afford it, champagne and ice. The pulse must be kept at seventy-two with aconite and belladonna, if that fail, belladonna and veratrum. Put the patient upon tinct. ferri chloride, and alternate with chlorate or permanganate of potass, for a drink, wine whey. If, however, a clotty condition of the blood is suspected, alkaline remedies, as ammonia, potassa, iodide potassa, sulphate of soda, large doses of lactucarium should be given to induce sleep, and if depression is threatened, rely on stimulants, if hemorrhage, iron. Locally, to the throat apply nothing but a piece of fresh beef or plain dressing, as all applications there are useless. At the commencement I have found inhalation of acid vapor excellent, 5v acetic acid to Oss water. For the exudation the inhalation of bromine, or bichromate of potassa or sanguinaria is most excellent.

Painting the exudation with a mixture of equal parts of tincture iodine and iron, once daily, has a good effect. Keep up with the inhalation every two hours. If the patient is able to gargle, then gargles of sulph. hydrastin and baptisin, chloride sodæ, carbolic acid gargle. No violence should be used, as anything that detaches the exudation is injurious.

Patient should be kept in bed in the recumbent position, flannel clothing, temperature of apartment seventy-five, to be kept moist by some antiseptic vapor, as the permanganate of potass, chlorine, bromine, moist atmosphere; bowels to be opened by enemas of beef tea and sweet oil. If there is suppression of urine, belladonna; if swallowing is prevented, beef tea enemas; tracheotomy is often performed when exudation obstructs the larynx, but with no success.

As soon as the acute affection is controlled, salt water baths, hydrastin, baptisin, quinine, iron, nux vomica, phosphorus, faradization; very generous blood elaborating diet; otherwise treat on general principles.

DROPSY.—This is merely a symptom of some diseased condition. The three most common forms of effusion are, *hydrothorax*, which depends usually on valvular disease of the heart, more rarely on an effusion from pleurisy; *ascites*, which depends upon structural disease of the liver, impeding the return of blood through the portal system of veins; *anasarca*, where there is a general effusion most

commonly depending upon disease of the kidneys, where those organs are inflamed, congested or degenerated, and, as a consequence, their capillaries are impeded, urea retained in the blood.

Dropsy may also be a symptom of debility, anæmia, pressure, inflammation. We have good examples of inflammatory effusion in *hydrocele*, *hydrocephalus*, *hydrops pericardium*.

In the treatment of any particular form of dropsy, we should, if possible, remove the effusion, by stimulating the *skin*, *bowels* and *kidneys*. This involves the use of *diaphoretics*, *cathartics* and *diuretics*, with alteratives, tonics and emetics.

As a diaphoretic, alcoholic vapor baths, warm baths, diaphoretic powders or sudorific drops.

As a purgative and diuretic, we are partial to the following:—*R.* Podophyllum, grains xxx.; nitrate potassa, \mathfrak{z} i.; bitartrate potassa, \mathfrak{z} ss.—*Mix.* Make 10 powders; one every three hours, and alternate with teaspoonful doses of—*R.* Fluid extract buchu, eupurpurin, hydrangea, uva ursi, aa \mathfrak{z} ii.—*Mix.* The comp. powder of senna and jalap, with cream of tartar, elaterin, &c., are excellent remedies. Digitalis acts well in dropsy. Fomentations to the loins, and just as soon as an impression is made, come in with alteratives, as iodine, irisin, rumin, &c., and those invaluable tonics, nitro-muriatic acid, iron, good diet, flannel clothing.

DYSENTERY.—This disease is one of the greatest scourges of our country, present in every season, and almost every locality. It exhibits itself as a specific inflammation and ulceration of the mucous lining and other coats of the bowels. The cause of this terrible malady is malaria, or a poisonous miasm analogous, and for the purpose of exciting this morbid condition, its malignant powers are exerted on a different set of organs, but its nature is essentially the same. It is endemic in all localities where malarial fever exists, and in some cases it is said to be contagious. It spreads rapidly if there is an absence of sanitary measures.

The predisposing causes are, strumous diathesis, constipation, abdominal weakness, general debility.

The exciting causes are, cold, chills, damp atmosphere, peculiar articles of food, crude, indigestible food, green fruits and vegetables.

The primitive seat of dysentery is the mucous membrane of the intestinal canal, and its nature is strictly inflammatory—congestive first, then irritative, and latterly a true inflammatory condition. Let a patient, living in a malarial section, be exposed to cold or damp, when the body is overheated, it will immediately repel the blood from the surface to the internal mucous membrane, which is intimately connected to the skin, at least by sympathy. The internal congestion is marked by rigor, want of appetite, nausea, paleness of skin. This engorgement breaks up the equilibrium between the vascular and nervous systems, and the latter, irritated by the action of a poison, is exerted in an unequal degree with the

former. Hence, the first symptom of the disease is often constipation, due to the heat present in incipient inflammation. The irritative stage is marked by the beginning of the wandering tormina, but no effusion of blood, for all the hepatic and intestinal secretions are arrested. The inflammatory stage is marked by the whole mucous membrane of the entire digestive tract being in a state of inflammation—the morbidly sensitive secreting vessels pour out vitiated, irritating secretions—effusion of blood from the intestinal surface might be expected to relieve the engorged organs, but the whole contents of the bowels and their acrid secretions rather increase the general distress.

The pathology of dysentery gives us a clue to its varied symptoms, an inflammation of the entire mucous tract of the intestines. When this peculiar diseased condition sets in, the mucous surface of the rectum becomes quickly involved, and becomes exquisitely sensitive, contracts spasmodically, and prevents the passage of all solid substances, permitting only blood, mucous or serum to escape. Constipation is obstinate, because the fæces accumulate in the cæcum and colon, and are retained there. Alimentary matters, blood, air, vitiated secretions are propelled forward by peristaltic action. Irritation and distension soon arouses the abdominal muscles too frequent, violent expulsive efforts; hence the great tenesmus, uneasiness, pain of a griping character. When ulceration begins, the desire to empty the bowel becomes more frequent, and is followed by shorter intervals of ease. The ulcerations in dysentery would undoubtedly be much more numerous and extensive, did not nature make an effort to arrest the activity of the inflammatory process, by a diminution in the activity of the secretory functions of the small intestines, which no longer pour out such large quantities of vitiated secretions, by a propagation of the inflammation to the muscular coat, which, when weakened by abnormal action, have no power to keep them so obstinately confined. The evacuations in dysentery are scanty, thin, mucous, bloody, mixed with small hard lumps of fæces. The scanty stools produce great distress, straining, particularly when the motions are dark colored, mixed with blood, purulent matter with shreds of lymph. The inflammatory condition is often propagated to the bladder; as a result we have frequent micturition, high, colored, scalding urine, great constitutional disturbance and prostration.

The disease often terminates in some change in the intestinal follicles; from the sixth to the tenth day they are dilated, break down and form small ulcerating points, and these by degrees penetrate the muscular, and sometimes we have perforation, thickening, or fatal peritonitis. There is often after convalescence troublesome constipation from contraction of cicatrices.

It often runs into a chronic intractable form, which causes wasting and degeneration of intestinal cords, or imperfectly cicatrized ulcers remain all over the parts affected with the inflammation. In the

chronic form the patient wastes, skin becomes dry, scaly, fecal matter becomes mixed with blood, great exhaustion, pain, tenesmus, &c.

Two forms of structural change attend acute dysentery, and in the chronic stage they retain their distinctive characters. In one form we have large ulcers of irregular shape, chiefly occupying the rugæ and longitudinal bands, while in the other small round ulcers. If the diathesis is strumous, the inflammation of a low grade, thickening is a frequent sequel, and often leads to stricture of the intestines.

IN TREATMENT, the removal of the predisposing and exciting causes under which the disease originated is all important. Pure air, cleanliness, perfect rest in bed in the recumbent position, strictly maintained; room well ventilated, prompt removal of putrid effluvia from the evacuations are indispensable.

The diet should be restricted to mild unirritating articles; mucilaginous and demulcent drinks, farinaceous food, as sago, arrow-root, rice flour, water made mucilaginous with slippery elm, gum arabic water, or by beating up the albumen of an egg in a pint of water. No cold drinks, no ice water or fermenting drinks. No beef nor mutton nor soups should be allowed, as they are always attended with bad results. Stimulating fomentations should be kept constantly applied over abdomen. If there seems to be a lodgment of hardened fæces, the neutralizing mixture with nux vomica and leptandrin might be given with excellent results.

Gelsemin is the remedy from which we derive the best results. One drop of the concentrated tincture every half hour until the urgency of the symptoms subside and the febrile condition yields. This of all remedies, is our best in dysentery. Once having controlled the pressing indications with gelsemin, call the liver into active action with the following: *R.*—Sulph. quinine, grs. xxx; leptandrin, euonymin, aa ʒss; gelsemin, grs. vi.—*Mix.* Make thirty pills. One every two hours, and as soon as the secretions are changed, come in with extract hematoxylon, opii, lycopin and baptisin, in small doses in combination.

Ipecac. in half grain doses every two hours, combined or alternated with gelsemin, is a most valuable prescription. If, however, in spite of these and other remedies, the stools continue numerous, watery, frothy or bloody, a combination of bismuth, nux vomica, gallic acid and goldthread.

Mudar may also be given like *ipecac.*, it is a reliable cholagogue, and sedative to the muscular fibres of the intestines, but acts more particularly on the rectum and colon, rapidly allays pain, tenesmus, and irritation, and puts a stop to dysenteric action.

By these remedies we can best control the morbid condition, and when this is done, if there is weakness and anæmia, quinine, hydrastin, tamarac, iron, cascarilla. During convalescence the diet should be generous, cream, raw eggs, broths, stimulants.

In addition to the above remedies, we often derive most satisfactory results from hydrocyanic acid, geranin, rhusin, hamamelin, bismuth, charcoal, pepsine, cod liver oil, glycerin and phosphorous, and if there is a disposition to collapse, diffusible stimulants, brandy and egg mixture with milk. If there is a loaded condition of the lower bowel, an enema of tepid water will meet the indication.

After the inflammatory condition is controlled, small doses of gelsemin, gr. $\frac{1}{16}$ every four hours is excellent, and during convalescence phosphorous, nux vomica, rhein, iron, cinchona. Diet, milk and animal broths.

DYSMENORRHOEA.—This condition of painful menstruation would seem to originate from a variety of causes, as derangement of the digestive organs, gouty or rheumatic constitutions, inflammatory or irritative causes, certain nervous conditions, rheumatic, gouty or psoric constitutions. Dysmenorrhœa is a disease only known among highly civilized women, never known where the laws of nature are not violated. This is apparent when we view the modern mode of life which the customs of civilized society impose upon young females. The foolish practice of moulding the shape of the body by corsets and stays, pressing the abdominal viscera downwards upon the bladder and uterus, and the thoracic upwards towards the throat, and thus mould a wasp-like waist to suit the morbid taste of modern society. By the application of steel and whalebone and compression, those vital organs of circulation, respiration, digestion and menstruation, are impaired—God's eternal laws are violated, human life is cut short. Modern woman has cheated her Creator, lowered her vital stamina, impaired her vital force, and has taken her place in deteriorating the very fountains of life in the nation to which she belongs. Civilized woman has made herself an artificial thing, recognized and known as a specimen of fashion, the functions of which are subject to natural derangements, by consumption, chlorosis, dysmenorrhœa, and every conceivable disease. The disease under consideration is much more common than is usually supposed.

There are three varieties of painful menstruation:

1. **Neuralgic Dysmenorrhœa**—In this form of painful menstruation, we have general lassitude, debility, headache, pain in the sacrum and lower part of abdomen for some days prior to the menstrual period. Soreness at the inner and upper part of the thighs, bearing down with sense of pelvic weight, and if the discharge comes on freely, instant relief is experienced. The catamenia is usually scanty, comes on in slight gushes, pain lessens and returns. Common in patients of a nervous temperament. Frequently marked symptoms of hysteria, flatulence, constipation, ovarian irritation.

It is most common in unmarried females, or in married women who suffer from ovarian irritation. Common after thirty years of

age. It induces a state of mental depression, nervous excitement, and is sometimes regarded as a species of mania.

In the treatment of all forms, abundant exercise in the open air, regular hours, a plain regimen, abstinence from all stimulants, as coffee, tea, and a temperature not exceeding 68°, Fahr., within doors, are primary indications in the treatment of all forms, regular bathing, &c., &c. If these points are carefully attended to, some important items are gained in the way of successful treatment, constipation is obviated, the circulation of the blood is equalized, animal heat equally developed, and all undue determinations of blood prevented.

Our treatment during the paroxysm would be the hip-bath for half or three-quarters of an hour, medicated with lobelia and belladonna. Internally belladonna is an admirable remedy. I usually prescribe it in the dose of a quarter of a grain of the solid extract three times daily, but if the patient suffers much, I have repeated it every hour until three or four doses have been given, according to circumstances. I have seldom been disappointed with its results. It is often advantageous to alternate with aconite or Indian hemp. Suppositories of belladonna are very valuable. If these remedies fail, hypodermic injections of a solution of sulphate of morphia. Warm poultices of hops and flaxseed to abdomen and vulva.

When the patient is free from the attack, we must, if possible, treat it according to its cause—if derangement of the nervous system, quinine and nitro-muriatic acid, phosphoric acid, hypophosphites, pulsatilla, ergot, conium, bitter tonics, as cinchona, hydrastis, goldthread, nourishing food, daily salt-water baths.

For the gouty and rheumatic forms of the disease, useful results will be obtained from *R.*—Colchicum \mathfrak{z} ii; sulph. quinine, grs. xxx.—*Mix.* A half a teaspoonful every three hours, alone or in combination with alkalis. Bromide of potassium or ammonium possess a sedative action on the several organs, and I have often used them with success in warding off neuralgic dysmenorrhœa.

In the hysterical form, pulsatilla in alternation with valerian is often magical in its operation.

Macroton is a positive antispasmodic, narcotic, tonic, emmenagogue, and its use is of great benefit in all forms of dysmenorrhœa.

2. Congestive Dysmenorrhœa—May occur at any period, although it is most common in young unmarried women of a sanguine or plethoric temperament. It often also depends upon a gouty or rheumatic diathesis, and is also an attendant on inflammatory conditions of the os uteri and cervix. In this form the suffering usually begins four or five days before each period; pain in the back, weariness, restlessness; sense of weight in the pelvis; irritation of the bladder; hemorrhoids; frequent flushings; throbbing uterine pain; menstrual flow comes on gradually, scanty at commencement; relief follows abundant flow. The great characteristic

of this form of painful menstruation is the expulsion of flakes or shreds of membrane; sometimes, complete and perfect casts of uterine cavity, formed of the epithelial lining of uterus, analogous to decidua. The uterus is congested, oedematous, often displaced; extreme tenderness over the ovaries, often swelling and tenderness in the breasts.

This condition evidently depends upon some inflammatory state, as rheumatism, psoric or strumous diathesis.

The same treatment should be pursued as in the neuralgic form—at least during a paroxysm—but a cure must be effected by striking at the cause: alteratives and tonics, colchicum and quinine, mecrocin, ergot, cinchona; but the only remedy to be depended on is the iodide potass., in five grain doses, thrice daily. The same remedy should also be thrown into the uterine cavity, say twice a week with the uterine syringe, in the following proportions:

R_x.—Aqua distilled, ℥iv.

Iodide potass., ℥ss. to ʒj.—*Mix.*

Insert the tube of the syringe right into the uterine cavity, and inject slowly, keeping the patient's pelvis well elevated. On or near catamenial period it should not be used.

Plain living, an avoidance of stimulants, open air exercise, and anything that conduces to health.

3. Mechanical Dysmenorrhœa.—This embraces a variety of conditions, the most common of which is a strictured condition of internal or external os uteri, or a narrowing of entire canal of cervix, or some uterine tumor, or of some form of displacement—retroflexion or anteflexion. Narrowing of entire cervical canal, conditions that cause sterility as well as dysmenorrhœa. In mechanical dysmenorrhœa there is an indication of obstruction to the escape of menstrual fluid; a scanty flow, discharge escapes in gushes, and each gush is attended with pain; pain in the back, irritability of bladder, congestion and tenderness of ovaries. An examination reveals a very small os uteri, perhaps an orifice of normal size, stricture being only detected by the uterine sound on the internal os. In some cases the os uteri is only smaller than natural, but under the influence of menstrual flow spasmodic contraction is often excited.

Ulceration of the os and cervix uteri is often a cause of dysmenorrhœa; indeed, nearly all physical imperfections of the uterine neck are either congenital or the result of inflammation.



Extreme dysmenorrhœa, from contraction of the cervical neck and os internum, independent of inflammation, is of rare occurrence.

In the treatment of this form of dysmenorrhœa, dilatation by sounds, or mechanical dilatation by sponge-tents, sea-tangle, and means of a like character are useless, for a relapse of the stricture or constriction is sure to take place sooner or later. The best and speediest mode of cure is to have recourse at once to dilatation of the os by incising it on both sides with Routh's hysterotome, followed by plugging with lint saturated with carbolic acid and glycerine.

The incision should be carried as far as the os internum, being careful not to cut too far in the upper portion of the cervix, lest some of the veins of the plexus uterinus be cut across.

DYSPEPSIA.—Anything that interferes with the healthy action of the stomach and intestines, may give rise to indigestion. In attempting to cure it, we find many complications in the disease itself, in the stomach, in all the organs and distant parts of the physical, as well as the nervous system. The symptoms are very numerous, ranging through all the structures and tissues of the body, involving nearly all of them in endless chains of sympathies and reflex actions.

The symptoms of indigestion are very variable in their nature and severity. Loss of appetite, pain, weight, fullness at the epigastrium after eating, acidity, flatulence, eructations, languor, nausea, vomiting, pyrosis, giddiness, sensation when walking as if the pavement was rising up in front; constipation alternating with diarrhœa; furred tongue and foul breath; palpitation, headache, pains in loins and limbs, heartburn, cramp, pressure in the stomach, hæmorrhoids.

In a more advanced stage there may be cough, pain in the chest, with muco-purulent expectoration.

If we for a moment glance at the physiology of the stomach, we can realize a dyspeptic condition more thoroughly. A healthy stomach contains no gastric juice, except where food is taken, and, by its contact with the surface of the mucous membrane, excites the secreting organs to pour out the gastric fluid in the requisite quantity. The process by which this secretion is called into existence, points to the solution of a practical problem in treatment. The impression made by the food on the organs of taste, on the surface of the stomach is, first of all, transmitted by the nerves to the nervous centres, thence propagated to the secreting apparatus, upon which devolves the duty of forming the gastric juice. If the stomach is in a healthy condition, and the brain healthy, the quantity of gastric juice generated or thrown out will be just sufficient for healthy digestion; if the condition of either organ be impaired,

the gastric juice secreted may be either deficient in quantity or vitiated in quality.

The stomach is the central reservoir of supply for the nutrition of the whole body, and every organ of the body depends upon that organ for its healthy condition. The ultimate relation between the stomach and other organs, the reflex action, the intimate relations between the stomach and the liver and other organs, render diseases of this viscus an important consideration.

The liver is always torpid; the tongue usually coated; the eyes tinged with yellow; urine scanty, high-colored deposits; a white sediment; skin dry, contracted; loss of strength; tenderness in the epigastrium; pain in the stomach; the brain is affected through the reflex action; there is imperfect nutrition, &c., and these various conditions are often produced by excessive fatigue, great mental excitement, the influence of passion, overwrought intellect—in fact, physical and mental drain, constitutional debility, sedentary habits, over-indulgence in eating, constitute prominent causes of the disease.

In the treatment of every form of dyspepsia, the diet should be regulated and easily digested, nutritious food allowed; new bread, tough or salted meats, alcoholic or fermented liquors, bodily fatigue or nervous exhaustion should be carefully avoided, and active exercise in the open air, with cheerful mental occupation, inculcated.

An important point in treatment is a perfect regularity of habits, as eating, sleeping, alvine evacuations and exercise.

The digestion should be improved by all means that tend to invigorate the system generally: Rest, early hours, relaxation, change of air, sea bathing, cold sponging, horse exercise, &c.

Our most approved remedies for the different grades of dyspepsia are: Hydrastin, cinchona, nux vomica, pulsatilla, nitro-muriatic acid, pepsin, iron, frazerin, salicin, hydrocyanic acid, columbo, tamarac, bismuth, sanguinaria.

Always examine the urine, and if there is oxalate of lime depend upon nitro-muriatic acid.

Phosphorus is often of great utility, as follows: R.—*Acidum phosphoricum dilutum*, ℥i.; *strychnine*, gr. ii. *Mix* five to ten drops thrice daily in a little water.

Sanguinaria and *ipecac.* increase the secretions of the stomach, and either may be given before meals in cases of slow digestion.

Hydrocyanic acid is of great use where there is pain in the stomach, on account of its sedative properties.

Pepsine plays an important part in dyspepsia, supplies the natural elements of the stomach, gives that organ rest.

Bismuth is a valuable remedy. The sub-carbonate is sedative in its action, and also tonic. It is peculiarly suitable for those cases where the tongue is red and pointed, or where the digestion is difficult.

DYSPHAGIA.—Difficulty of deglutition exists in several varieties.

Dysphagia from nervous irritation occurs most frequently in young women of an irritable nervous temperament, who suffer from leucorrhœa, painful menstruation, and impaired digestion. It is purely nervous, no emaciation, the attack comes on suddenly, there is nervous excitement but no pain.

Dysphagia from spasmodic constriction of the pharynx is also occasionally met with.

Dysphagia from mechanical injury of the œsophagus is frequently brought about by swallowing hard and imperfectly masticated food.

Difficulty of swallowing is often a cause of apoplexy.

Our best remedies in the treatment of this condition are, phosphorus, nux vomica, cinchona, drosera, rhus radicans, gold, bromide potass., scutellarin, cypripedin, quinine, hydrastin.

DYSPHONIA CLERICORUM.—This is a peculiar condition of the mucous membrane which lines the larynx and trachea. It often begins as a nervous disease, and more rarely as a follicular disease of pharyngo-laryngeal membrane. In its early stage it is unattended by any organic lesion, but would seem to consist of hyperæsthesia or irritability of investing membrane of the fauces. After a while congestion, inflammation or relaxation of mucous membrane, enlargement of tonsils, elongation of uvula, irritation, inflammation, morbid deposits and ulceration of the mucous follicles.

It is indicated by a complete loss of voice in some cases; in others it may begin with an uneasy sensation in the upper part of the throat, with an inclination as if there was something to swallow, cough, and the larynx painful on pressure, expectoration of a thin, but viscid mucus, (occasionally pus,) gradual loss of voice, diminution of power, hoarseness towards evening, and gradually merges onward until there is complete aphonia. Unhealthy granular condition of fauces, and the mucous follicles are filled with yellow matter. There is often great emaciation, and, as the disease progresses, all the symptoms of phthisis pulmonalis, and ulceration, ossification, caries of the cartilages.

The vocal cords were made as a means for us to express our thoughts. The brain supplies the stimulant, (the nervous energy,) and thus co-operates with the vocal cords in giving expression, and saves us from disease. But if we use the vocal cords by monotonous reading, without bringing the brain as a co-worker, we may create a want of equilibrium—*disease*. It is thus that this disease is so often found among a certain class of preachers, who read their sermons, without a solitary intellectual effort. It is seldom met with among lawyers or stump speakers, who give their brain to the work, and thus give the muscles of speech additional recuperative energy.

The treatment in the early stage should consist in rest of voice, cheerful mental occupation, the sea side or a change of scene.

Our remedies, best of blood elaborating diet, phosphorus, iron, quinine and hydrastin, as follows:—*R.* Good brandy, $\mathfrak{z}\text{iv}$.; sulphate quinine, grs. xxx.; phosphate iron and hydrastin, $\mathfrak{a}\mathfrak{a}$ $\mathfrak{z}\text{iii}$.—*Mix.* A teaspoonful every three hours, and alternate with phosphorus and nux vomica. The best local agent is iodine. It has powerful and direct effect or influence in modifying the condition of the mucous membranes, applied by a brush or in the form of spray.

If the disease is confirmed, then a course of alteratives and tonics are demanded. We must put the patient upon comp. syr. stillingia, Oss.; iodide potassium, $\mathfrak{z}\text{i}$.—*Mix.* A teaspoonful every three hours; and this might be alternated with—*R.* Quinine, hydrastin, $\mathfrak{a}\mathfrak{a}$ grs. xxx.; ext. nux vomica, grs. x.—*Mix* and make 30 pills. Gold, glycerine and phosphorus, permanganate or chlorate potass., generous diet. The best results follow inhalation of atomized spray of sulphate hydrastin, iodine, nitrate sanguinarin.

ECTHYMA.—This is not a common disease, and usually presents itself conjoined with eczema and other forms of skin disease. Ecthyma is a non-contagious inflammation of the skin, characterised by large, round, prominent pustules, and occurs upon any part of the body. Pustules are usually distinct or isolated, seated upon a hard inflamed base, depressed or umbilicated in the centre, and leaving a cicatrix.

This form of skin disease originates from a morbid condition of the same, which supervenes during the course of various diseases, as venereal diseases, scrofula, scurvy. It is met with in an acute form, and preceded by lancinating pains, febrile condition; it is more frequently chronic; due to bad living and total absence of hygiene.

The best remedy I have ever used in ecthyma is the alnuin, with attention to hygiene and diet. The fluid extract of the tag alder and yellow dock make a most efficacious prescription.

ECZEMA.—In health there is a perfect equilibrium of every organ and gland in the body. Disturb that harmony and we have disordered action—*disease*. If the laws of hygiene be neglected; if articles of diet that are unfit for food be consumed; if the secretions do not perform their proper function, there is a loss of harmony—*disease*—and this want of equilibrium shows itself by preference on the skin. That gland is the largest and most important in the body, and operates in unison with every organ of the human structure. Arrest or retard the function of the kidneys or liver, and how almost instantaneously is the color of the skin affected. Give indigestible food, an irritant, or lock up the bowels from a want of peristaltic action, or deteriorate the blood, how promptly does the skin give indication of the disorder. The most common condition that mal-assimilation or disorder of

the organs of secretion or excretion gives rise, is inflammation of the skin.

Erythema is applied to that peculiar form of inflammation or congestion of the skin occurring in superficial red patches of variable form and extent, and appearing on any part of the body. If the cause of this inflammation is not removed it will terminate in one of the results of that process, to wit: effusion.

Eczema is applied to that effect, first, erythema, where the skin becomes red, swollen, painful; eczema, where that salutary effort of nature is unaided, passes into effusion—a discharge of serum takes place in the follicles and sebaceous ducts of the skin, and, from their fragility, break down and reveal moist excoriations, patches of ulceration, covered with scabs or crusts.

The most efficacious treatment consists in giving an emetic of comp. powder lobelia, followed with comp. podophyllum pill, and a warm alkaline bath. Then put the patient upon the following formulæ in alternation: *Ry.*—Comp. syr. stillingia; syr. yellow dock, āā \mathfrak{z} iii; tinctures iris versicolor, kalmia, āā \mathfrak{z} i.—*M.* *Ry.*—Comp. tinct. cinchona, \mathfrak{z} iv; nitro-muriatic acid, \mathfrak{z} ii.—*M.* Dose of each, a teaspoonful every four hours. Diet nourishing but not stimulating; milk, eggs, beef, farinaceous substances generally.

The only local treatment admissible is such as will subdue inflammation. The part should be kept constantly moist with linen saturated with the following: *Ry.*—Bicarbonate sodæ, \mathfrak{z} i; aqua dist., Oi.—*Mix*, and over and above all, oiled silk. Constant moisture, of an alkaline character, removes local irritation; it keeps the surface clean, removes congestion, and promotes a return of the parts to their normal character.

EMBOLISM.—A highly fibrinized condition of the blood is apt to be created by certain conditions and particular diseases. This peculiar condition is often developed during pregnancy; we meet with it also in croup, diphtheria, scarlatina, typhus, erysipelas, and other diseases. In this condition, there is a strong disposition for the blood to clot, either on the walls of the blood-vessels or the interior of the heart, and often these fibrinized coagula are carried forward by the circulation and block up some particular vessel or vein. There is no part of the body exempt from having these clots arrested in their substance, or in their peripheries; they are a frequent cause of sudden death after labor, and diseases in which they are peculiar. In a *post-mortem* examination of cases of patients who have died from this condition, fibrinous specks or patches have been detected on the walls of the vessels, and large coagula found in the brain, lungs, heart, liver, &c.

The diagnosis of the disease is often difficult and the symptoms are very variable.

The best results in treatment are to be derived from the most perfect rest in the recumbent position; this is undoubtedly the

most important indication of treatment. Then irritability should be allayed, vital power supported; diet, milk, eggs, soups, and to meet the pathological condition of the blood the following remedies should be given: *bromide ammonium* is an excellent remedy when a disposition of fibrine has taken place; *sulphate of soda*, valuable in the tedious convalescing stages of fever where this condition is suspected; *permanganate potass* has a like effect over the morbid condition; *sulphate quinine* is chiefly of value on account of its alkaline properties.

EMPHYSEMA—There are two varieties met with, one consisting of enlargement of air cells, atrophy of their walls, from fatty degeneration and otherwise, sometimes fibroid degeneration, a kind of interstitial death involving a loss of the functions of elasticity and contractility in the tissue affected, extreme softness and delicacy very apt to cause the morbid condition; obliteration of the blood-vessels of the affected part. This form is called vesicular emphysema. The other variety is met with in the form of an infiltration of air into the interlobular areolar tissue, or into subpleural areolar tissue, generally caused by patches of the areolar tissue not having acquired its full power of resistance, or from having lost it by some morbid change, and this is called interlobular emphysema.

Both forms produce habitual shortness of breath; occasional paroxysms of asthma; difficulty of breathing and great distress, that the sufferer is unfit for any active occupation, and also they frequently give rise to disease of the heart and dropsy.

Expiration is the most efficient cause of the dilatation of the air vesicles in emphysema, and the parts most frequently found affected are the apices of the upper lobes, and when we find it elsewhere, the apices and edges being free from it, it is due to the degeneration being local—it is an interstitial partial death, or degeneration of the pulmonary membrane—an abnormally friable tissue. This membrane forms the frame-work of the vesicles, loses its elasticity, and is determined to dilatation by the action of forced expiration.

In all forms of emphysema, there is difficulty of breathing on the least exertion; feeble cough, expectoration of frothy mucus, dusky appearance, weakness of voice, stooping gait, loss of strength and flesh. The temperature of the body greatly diminished, remarkable weak and slow pulse, attacks of asthma, arrested secretions. Percussion reveals unnatural clearness and resonance. Auscultation gives indistinct vesicular murmur, or moist râle, same as in bronchitis. Heart sounds feeble; very frequently cardiac displacement. The affected side is unduly prominent and rounded.

The pathology of emphysema shows an increasing loss of vitality in the pulmonary membrane, so that the leading indication in treatment is to increase vitality.

Another point is the observance of the breathing. Expiration is the dangerous and injurious part of breathing, and especially

forced and arrested expiration. The patient should carefully avoid all employments that strain the respiratory muscles, everything that makes the patient hold in his breath, such as lifting heavy weights, digging, rowing.

THE TREATMENT, then, is restorative, such as will restore vital power, so as to renew the pulmonary membrane, that it may form healthy elastic tissue. Those spots where the walls of the air vesicles are broken away, where bullae exist instead of vesicles, should be filled up again with a new growth, may be considered hopeless; but where the form of the lung remains perfect, where the weakened or softened spot is still intact, we should not despair of rational treatment. The best medicine is the healthy blood of the patient's own body, and to make that blood healthy and capable of making new material, is the rational aim of treatment. For this purpose, creative arterial blood should be generated by invigorating diet and attention to the digestive organs; warm clothing. Our best medicinal agents are, phosphorous and glycerine, iron, hydrastin, cinchona, remedies that afford a molecular base to the growth of new tissue. No remedy is so deleterious as that terrible poison—alcohol; nothing is so injurious to degenerative tendencies.

Our next best remedy is lobelia, to diminish the action of the respiratory functions—it calms the distressing asthma—it should be given in moderate and graduated doses, and some alkaline solution with or after it, so as to neutralize acidity, which frequently prevents its acting promptly. Stramonium, also, is very beneficial. Quinine has also an effect in the same direction. Hydrochlorate of ammonia is often valuable.

If there is an unhealthy condition of the mucous membrane of the trachea and large bronchi, a few drops of turpentine or balsam copaiba have a very powerful effect as restoratives, to induce healthy action into diseased mucous membranes.

Some patients are constitutionally liable to the peculiar degeneration that gives rise to this morbid condition. Patients of a leuco-phlegmatic temperament are most obnoxious to it, and in them the degeneration is rapid and acute, and if not checked by tonic treatment, proceeds rapidly to a fatal termination. In patients of a sanguine temperament, emphysema is not common, but if it does occur, it is less likely to be benefited by iron and phosphorus than in the leuco-phlegmatic.

Expectorants are a class of remedies that may relieve for the moment, but do no practical good; they lower the appetite and powers of digestion, and are a barrier to the administration of active restorative treatment, which is the true mode of cure in emphysema.

ENDO-CARDITIS.—The great frequency of diseases of the heart is undoubtedly due to the prevalence of a latent form of rheumatism. The presence of lactic acid in the blood, in the secretions,

and its proneness to attack peculiar tissues and excite an inflammatory condition as an effort of nature at elimination, are too well known to be described.

The serous membrane that lines the internal cavity of the heart, and which, by its reduplication, assists to form the valves, is more frequently attacked by inflammation, and consequent effusion, than any part of the body. Endocarditis of the left, is more common than of right side of heart. The portion of membrane covering valves and lining orifices is most frequently attacked. At the time it is seldom fatal, but its remote effects are to be dreaded.

The diagnosis is most important—fever, small, feeble, intermittent pulse; patient always prefers to lie on his back, complains of great oppression and uneasiness over the region of the heart, is restless and anxious, extreme difficulty of breathing, jactitation, cold sweats, syncope—common in a case of acute rheumatism.

Palpitation detects a vibratory thrill.

Percussion seldom reveals anything.

Auscultation detects a soft, bellows murmur. If the murmur be systolic, it is most distinct at the base and along the course of the aorta, and is accompanied with small pulse and *aortic obstruction*; if systolic, most distinct at apex, with irregular pulse, it is due to *mitral disease*. A diastolic murmur, most distinct from centre of sternum upwards towards the base, with a jerking pulse, indicates *aortic regurgitation*, while a diastolic murmur, most distinct from fourth left intercostal space down towards the apex, with an irregular, small pulse, results from *mitral obstruction*.

The termination of inflammation here is permanent valvular disease, with obstruction to circulation, dropsy and death.

The only treatment reliable is, to effectually control the circulation by veratrin, and neutralize the poison; acidity, with alkalis; perfect rest of body and mind, well regulated secretions. Alkalis, as quinine and colchicum, bromide potassa or ammonia, iodide potassa and comp. syr. stillingia, macrotin. Over the region of the heart, iodine.

ENDO-METRITIS.—There are but few local affections that give rise to so much constitutional disturbance as inflammation and its results, occurring in and about the uterus. The mucous membrane of the uterus is furnished with glands that secrete a peculiar fluid, and different grades of inflammation materially affect the quantity and quality of that secretion, and give rise to obstinate forms of leucorrhœal discharge.

The mucous membrane which lines the cervix uteri is furnished with mucous cysts, or follicles, secreting a fluid which is distinctly alkaline in its reaction. This undergoes changes which adapt it to the various functions which it has to perform. Inflammation here may give rise to abrasions, ulcerations and morbid secretions.

The secretion from the external portion of the os uteri and vagina

is acid in its reaction. This serves a valuable purpose in the female economy, tending to keep the menstrual discharge in a fluid condition, and prevents the decomposition of coagula.

The mucous membrane of the uterus, when acted on by morbid influences, may become affected with inflammation, congestion, abrasion, ulceration, and, when we reflect on the great sympathetic influences that are at work, we can realize the phenomena of the symptoms present in any particular case. The womb is supplied with nerves by the two great divisions of the nervous system—the cerebro-spinal axis and the trisplanchnic nerves—the former presiding over animal life, whilst the latter are essential to organic existence. The pain in the head and back, (the result of uterine disease,) is conveyed through the cerebro-spinal axis, whilst the organic developments, as manifested in the heart, stomach and lungs, are due to the action of the ganglionic departments, and this point gives us the starting point to the very anomalous symptoms present in inflammation of the mucous membrane of the uterine cavity. The skin is hot and dry, great irritability, derangement of liver, sallow complexion, loss of appetite, pain in the lower part of the abdomen and sacrum, groins, inside of the thighs, sense of heat and fullness about the pelvis, bearing down, frequent micturition, urine loaded with urates or uric acid, diarrhœa or constipation, tenderness over the ovaries, thick, tenacious discharge, afterwards purulent secretion, imparting a greenish or yellow stain to linen. The disease is prone to run a tedious course, debility often great, with hysterical symptoms, tenderness, and even fullness of the breasts, and hemorrhagia, if the fundus be involved.

The predisposing and exciting causes are, irritation, venereal excesses, cold, morbid passions, hot room, sedentary habits, self-abuse, &c.

What is the best mode of treatment of catarrhal inflammation of the mucous membrane lining the uterine cavity? Evidently rest in the recumbent position, plain, stimulating diet, fish, milk, free secretion, an equalized circulation and an appropriated selection of alteratives, as follows: *Bromide potass.*, *iodide iron*, *canabis sativa*, *iodide potass.*, *nitro-muriatic acid*, *alnuin*, *frostwort*, &c.

By far the largest class of cases of inflammation of the mucous membrane lining the uterine cavity are due to causes that produce a determination of blood to that part, as checks to the perspiration, over-exertion, &c., and whilst we would give internal remedies, and employ suitable hygienic means, and other means calculated to improve the health, which operate as a direct means of cure, rest is an important indication in treatment. A pure, bracing atmosphere, cold hip-baths, local shower-baths, cold general baths, wet packs over the uterine organs, enemata of cold water, are of more or less advantage. Cold water is a good agent to allay inflammatory and other hyperæmic conditions in accessible parts of the organism and to restore tone to weakened or relaxed organs.

Local medication often exercises a specific control over morbid conditions, and those agents that produce tonicity are those that give most satisfactory results. We apply remedies to aid nature in her curative efforts—the recuperative efforts of nature all tend to renew life. Injections of the following are very valuable: Pond's extract hamamelis, one ounce to a quart of water; fluid extract white pond lily, two ounces to a quart of water. These are tonic and astringent; they cleanse and stimulate, and we derive great advantage from them.

ENTROPIUM.—Inversion of the edge of the eyelids may be caused by contraction of the ciliary margin of the lid; often a result of inflammation of the tarsi, thickening of the edge of conjunctiva, and other causes of a like character. If it exists for any length of time, it causes morbid changes from the irritation of the inverted cilia upon the eyeball.

It should be treated according to its cause. If there is great looseness of the integuments, entropion may be remedied in various ways, by the application of collodion and tannic acid, or by the application of strips of adhesive plaster stuck firmly on the lid, and then drawn down and fastened on the cheek; and, if these means are insufficient, caustic potassa may be tried, applied to an oval portion of the integument, of a length corresponding to the inversion, and about a quarter of an inch broad in the middle. The caustic should be applied until a sufficient contraction of the skin is produced, so as to bring the eyelid into proper position. Cauterization is best adapted for slight or recent cases, and not admissible where the skin is superabundant. If these means are insufficient, removal of a fold of skin of sufficient width, with a portion of the orbicularis beneath, is sure to be successful.

ENTERITIS.—Inflammation of the small intestines varies greatly in its intensity. When treatment is active, resolution is the result. We have no positive sign to indicate where the inflammatory process exists; all the coats of the bowel may be involved or only one. There is no mark by which we can positively say that the inflammatory condition exists in duodenum, jejunum or ilium. The symptoms closely resemble peritonitis, rigors, hot skin, temperature 102, pulse small, wiry, almost imperceptible or hard and frequent, features pinched, great pain around the umbilicus, aggravated by pressure or motion, anxiety is great, restlessness extreme, dry skin, obstinate constipation, delirium, nausea, vomiting. The patient lies in a position to relax the abdominal muscles.

Treatment.—My treatment for inflammation of the small intestines is as follows:—*R.* Opii, grs. x.; Dover's powder, grs. xxx.; nitrate potassa, \mathfrak{z} i.—*Mix.* Make ten powders, and give one every hour until the *pain* is subdued, then one every two hours, and latterly every three hours. In addition, half a teaspoonful of comp,

tincture serpentaria, and five drops of tincture of aconite as frequently as the opium, and in alternation with it. Over the seat of inflammation, hot linseed poultices, changed frequently, are very efficacious. The even temperature of a poultice is by far the most powerful means of restoring the deficient vitality of the bowels; it acts as a sort of perpetual warm bath to the abdomen. Enjoin the most perfect rest in bed. As a drink, milk and lime water.

Nux vomica is an excellent remedy in indigestion, afflicting persons of a nervous temperament.

Cinchona, *hydrastin*, *nitro-muriatic acid*, are well adapted to all cases of dyspepsia in bilious or sanguine temperaments.

Lycopodium, *tamarac*, are particularly suited to females of a lymphatic or scrofulous diathesis.

Frazerin, where a pure, bracing tonic is demanded.

Lobelia, in small doses, if there is cough, as this remedy acts as a specific upon the pneumogastric nerve.

Sulphur is peculiarly adapted to patients of a scrofulous dyscrasia, and where the dyspeptic symptoms depend upon the disappearance of some eruption.

ENURESIS.—As it is often desirable to have at hand various prescriptions of the relief for this troublesome difficulty, we may mention the following as excellent: Tincture belladonna and muriated tincture ferri in alternation, in regulating doses, according to the age of the child. The belladonna produces immediate effects.

In incontinence dependent upon paralysis of the sphincter of the bladder, ergot is often excellent, so is electricity; but the following is better: \mathcal{R} . Quinine, iron by hydrogen, āā grs. xxx. extract belladonna, grs. vi., extract nux vomica grs. x. *Mix*; make 30 pills. One every three hours, and alternate with phosphorus.

If it depends upon debility, cold shower baths, bitter tonics, sea bathing, a tonic nourishing diet, glycerine and phosphorus, cinchona, hydrastin.

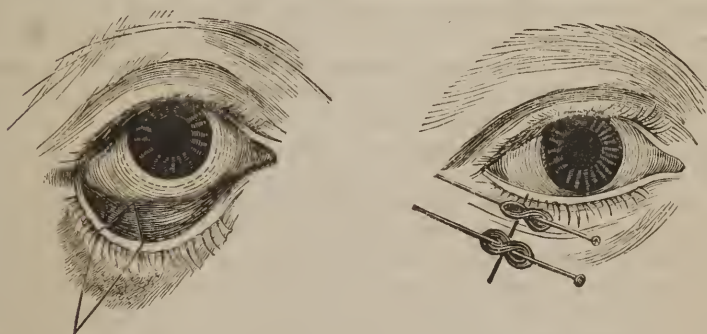
If it depends upon the lithic acid diathesis, or the presence of an acid condition of the secretions, benzoic acid, nitrate potassæ, and nux vomica, are our best remedies, alternated with tinct. macrotys. The greatest success has attended the use of those alkaline remedies in this form.

If it depends on old age, iron is our chief remedy, alternated with phosphorus.

In all cases it should be treated according to the cause; but in bad cases, a course of alteratives and tonics, and if there is great irritability of the bladder, belladonna plaster over the loins and sacrum, or frictions with belladonna ointment. If the walls of the bladder are weak, nux vomica, ergot, macrotin, electricity to lower portion of spine and abdomen.

ECTROPION.—*Eversion of the Eyelids.* In ectropion the eyelid is drawn away from the eyeball, its conjunctival surface turned out, and its ciliary margin displaced. It is frequently caused by a cicatrix from a burn or injury, sometimes by paralysis. Probably the worst complication in ectropion is the eyeball being deprived of its natural protection, is exposed to constant irritation, and a state of chronic inflammation of the conjunctiva is set up, not only weakening the eye, but very apt to run on to effusion of plastic lymph on the cornea, or to ulceration, and if the diseased condition has existed some time, obliteration of the lachrymal duct and escape of the tears on the cheek.

If the case is not very bad, or of very long standing, this may be remedied by painting the edge of the eyelid with collodion, \mathfrak{z} i.; tannic



acid, grs. xxx.; *M.* The use of astringent washes is also attended with good results. But if, after a fair trial of the astringent treatment, excision should be resorted to, as in the annexed wood cut, the greatest care should be exercised that too much be not removed, for if we remove too much, entropion may be the result.

ELECTRICITY.—This is a valuable remedy in the treatment of a large class of diseases, and nearly all the unsatisfactory results that are attributed to it are based upon its improper application. Whenever or wherever used, the positive pole should be applied to the origin of nerve supply, either to the spine or to the part whence springs the nerve; the same rule applies to the faradisation of muscles. The physiological action of the remedy is a stimulant to the nervous system, a stimulant to the most minute fibrillæ, to the most delicate nervous texture, to the neurilemma or sheath of the nerves; its stimulation promotes absorption, and performs it quicker than by any other means.

Besides its great value as a stimulant to the nervous system, it possesses the power over muscular fibre of causing contractions,

and is valuable when muscular contractility is weakened or lost, as in muscular paralysis, in the progressive atrophy of muscles which terminate in their fatty degeneration.

EMMENAGOGUE.—All emmenagogue remedies possess a specific power over the womb; their variety have led the profession to adopt many of inferior value. The following we regard as the best emmenagogue formula: *R̄. ext. sabin, ext. podophyllum, macrotin, ergotine, aloes, gossypin, āā.* *Mix* and make into three grain pills, and give two every three hours.

ENTOZOA.—The parasitic animals which infest the human body. These are very numerous, upwards of thirty forms having been described by some medical authors; but even the enumeration of them all could only serve to gratify the curiosity, for during many years practice I have rarely or never met with only three varieties. Let a description of these suffice.

1. *Ascaris Vermicularis*, or *Ascarides*.—The most common variety, white and thread-like, very slender, and only from one-fourth of an inch to an inch in length. They possess great celerity, and when touched contract to about half their length. Their seat is the large intestines, and are most abundant near the termination of the rectum. But they have been found even in the stomach.

2. *Lumbricoides*.—Somewhat resemble the common earth worm; they are round and the size of a goose-quill; yellow and transparent belly; from four to twelve inches in length; their principal seat is the small intestines, but occasionally found in the colon and rectum. They are sometimes discharged in masses, being united in balls.

3. *Tenia* or *Tape-worm*.—A long worm, formed of a chain of flat articulations connected by a membranous border, each of the links is possessed of independent vitality, and capable of becoming a distinct worm.

The species called *armed tape-worm* is found exclusively in the human subject; it is difficult to effect its expulsion, as it is armed with two small fangs, which enable it to hold on tenaciously to the mucous membrane of the intestines. It is usually expelled in joints, which resemble gourd seed.

Signs of Ascarides.—Irritation and intolerable itching and pricking pain, with swelling at the extremity of the rectum. Occasionally they produce inflammation of the rectum, and discharges of blood with tenesmus.

Signs of Lumbricoides.—Pricking and rending pain in the umbilical region; colic with rumbling noise in the abdomen, occasioned by the worm irritating the mucous membrane with the sharp cutting point of its head.

Signs of Tenia.—A feeling of something alive in the bowels, with a sense of weight; bitings felt in region of the stomach, the

abdomen swells and subsides at intervals; voracious appetite; livid complexion; vertigo and dilated pupils; vomiting; convulsive trembling of the whole body; small portions of the worms, like gourd seeds pass with the fæces.

The SYMPTOMS are variable where worms exist; still, the following are nearly always met with: Capricious appetite, acid eructations, pain in the stomach, grinding of teeth during sleep, fetid breath, picking at the nose, hardness of the abdomen, griping pains about the umbilicus; heat and itching upon the arm, short, dry cough, and general emaciation. Evening exacerbations, irregular pulse and convulsions.

Worms are to the intestinal mucous membrane, what the acarus is to the skin, and should be removed by the ordinary anthelmintics.

In the TREATMENT we must have in view the destruction and expulsion of the worms, and preventing their future generating. Remedies acting mechanically have often proved useful, and more so when combined with those possessing a chemical and purgative effect. The spirits of turpentine is a remedy well adapted to all the varieties. If this fail, the pink-root is likely to prove serviceable, ten grains of the powder to a child, night and morning. *Spigelia* is a poisonous narcotic, and this property renders it beneficial in those cases.

In tape-worm I have found the oils of pumpkin-seed, male fern and turpentine the most admirable combination ever introduced, followed by an active cathartic of podophyllin and jalapin. An infusion or extract of kosso, may be used with advantage. In the lumbricoides, the best therapeutic agents that I have used are the oil of chenopodii, santonine and podophyllin; santonine is particularly satisfactory; salacin is also very good.

In the ascarides, enemas are of the greatest use; an injection of a solution of table salt, podophyllin, aloes, lime water, and camphor water.

As worms are surprisingly productive, the treatment should be persevered with for some time.

After a proper course of vermifuge and evacuant medicines, we should employ sulphate hydrastin or cinchona, or such like remedies as have a tendency to strengthen the stomach and intestines.

Saccharine substances should be strictly forbidden.

EPILEPSY.—In order to appreciate this subject thoroughly, it is highly important to understand the various causes that give rise to spasmodic action. Irritation conveyed to the cranio-spinal axis may be reflected in four directions. 1. Upon a musculo-motor nerve, causing contraction of a muscle or muscles. 2. Upon a sensitive nerve, giving rise to neuralgia. 3. Upon a vaso-motor nerve, causing contraction of blood-vessels. 4. Upon a tissue nerve, producing a secretion or an alteration of nutrition.

Under the first head we may class all causes of eccentric irrita-

tion, as the vomitings of pregnancy, the convulsions of dentition, the cough of gastric irritation.

Under the second head we have irritation reflected on a sensitive nerve, as neuralgia from a cicatrix, or stricture, or carious tooth, headache from gastric irritation.

When the irritation is reflected upon a vaso-motor nerve, we shall have contraction of the blood-vessels supplied by it. Excitation of the motor nerves of a gland, in a full state of activity, will check its secretion, by cutting off the supply of normal blood. The nervous centres are merely glands, generating or elaborating nerve-force from the blood—the nerves being merely ramifications or tributaries to carry it to its destination; consequently, any cessation of nervous activity may be produced by contraction of their blood-vessels by reflex excitation. From this cause we have loss of consciousness, paralysis, anæsthesia; sudden contraction of the arteries of the brain proper by an irritant reflected appears to be the starting point of an epileptic fit. The pallor of the face, which appears as the patient falls, results from the same cause. The same irritation falling upon the laryngeal, cervical and respiratory muscles, brings them into a state of tonic contraction, thus impeding the arterialization of the blood; hence the purple hue which succeeds the primary pallor of the face, and the general clonic convulsions throughout the frame. In a very slight fit, the cerebral arteries alone feel the irritation and loss of consciousness, without convulsions. A still less degree of contraction merely gives rise to vertigo.

The characteristics of an epileptic fit are a sudden loss of consciousness and sensibility, with tonic convulsions, lasting a few seconds, and followed by clonic spasms of involuntary muscles. The termination of the fit is succeeded by exhaustion and coma, fits recurring at regular intervals.

The symptoms of epilepsy are extremely variable. Sometimes we have premonitory symptoms, as headache, giddiness, ringing in the ears.

Aura epileptica, or pricking sensation extending from the extremities to the head, drawing inwards of the thumbs towards the palms of the hands, and a sensation of fullness in the head, but more frequently the fit occurs without any warning; cadaverous pallor of countenance, with a shriek or scream, immediately after which the patient falls to the ground senseless and violently convulsed. Convulsive movements continue violent, usually more marked on one side of the body than another; the face and eyes are distorted, the tongue is often bitter, stertorous or difficult breathing, skin cold and clammy, perhaps involuntary micturition or defecation, vomiting, breathing stertorous and difficult, almost suspended, pulse weak, frequent and irregular. After the paroxysm has subsided, the patient usually sleeps profoundly, and, for a day or two, remains languid, with headache.

The average duration of a fit is from two to three minutes—sometimes lasts as many hours. It may occur at any age—most common in the young.

Its predisposing causes are, hereditary taint, strumous diathesis, marriages of persons who are incompatible by temperament or consanguinity.

It is usually embraced under two forms—*idiopathic* and *symptomatic*.

Under the *idiopathic* form we class various affections of the brain and defective nervous organization of the cranium, lesions of the meninges, extravasation, exostosis, &c.

Under the *symptomatic* form we rank irritation in the alimentary canal, as indigestible matter, worms, irritation reflected or propagated to an irritable brain, from any cause; derangements of the organs of circulation, stimulation excessive, hemorrhoids, suppression of menses, wrong modes of living. In scrofulous subjects, retrocession of an eruption may excite it. Venereal excesses, masturbation, pregnancy, fistula, delivery, &c., are often causes, but, in all, the irritation is radiated to the medulla oblongata to produce this variety.

Two forms—*idiopathic* or *centric* epilepsy, *symptomatic* or *eccentric* epilepsy—the former induced by disease within the brain or spinal marrow, irritating the excitor nerves or the medulla oblongata, induce epilepsy often of an incurable type; the latter takes its origin in the excitor nerves of the true spinal system, involving the axis of this system and its motor nerves in their turn.

The pathological condition of the brain in epilepsy is that of enormous congestion of the substance, vessels and membranes of that organ. Indeed, the first morbid action present in the disease is a determination of blood to the brain, which expends itself on the secretion of that nervous power, which, in a state of health, is employed by the brain to convey volition to the muscles. This excessive secretion is carried off by the motor nerves, and from its quantity and excess, produces excessive action of the muscles. We can better appreciate this, if we for a moment take into consideration the mode by which particular determinations of blood are made to particular parts of the body. The middle or muscular coat of the arteries, in a state of health, contracts with each systole of the ventricles of the heart, just sufficiently to give firmness to the wall of the vessel, so that the force of contraction is not lost on a yielding surface; for, if this middle coat does not contract, or only imperfectly contracts, then the force of the heart dilates the tubes and produces congestion. Now, it is supposed that a determination of blood to the head arises from a deficient contraction of the muscular coat of the capillaries of the brain, preceded by some excitement of the heart. The reason that the brain suddenly and entirely neglects to perform its duty seems to be some defective innervation from the sympathetic nerves, whose office is to regulate

the coats of the arteries so as to produce secretion. Some authorities attribute the fault to the cortical substance of the hemispheres of the brain, rather than in the central ganglia.

The great increase of epilepsy is no doubt due to the eating of indigestible articles, uterine irritation, masturbation, drunkenness, syphilitic disease, mercurial poisoning, psoric or skin affections, &c.

TREATMENT.—The symptoms are those of a sudden explosion of accumulated nervous energy. From the periodical character of the fits it is inferred that the accumulation of nervous energy goes on for a definite time in the brain and spinal cord, till an explosion ensues upon the muscles of voluntary motion, which are thrown into violent action, and by these means the accumulation is exhausted. The explosion is followed by languor, coma or prolonged sleep—all signs of an exhausted nervous energy.

Many measures have been proposed for preventing the gradual accumulation and sudden explosion of the nervous energy, constituting epilepsy, as abundance of exercise, daily bathing, plenty of fresh air.

TREATMENT during a fit should be directed chiefly to protecting the patient, all his clothing should be loosened, so that the blood may have free circulation to and from the head and all parts of the body. A cork, or some soft substance, should be placed within the teeth to save the lips and tongue from being wounded by the spasmodic movements of the jaws—the patient should be placed in bed and restrained so that he does not commit any personal injury. If the attack is preceded by an *aura*, the tying of a ligature just above the part where it commenced will often prevent it. The head should be well elevated, and cold effusions applied, air should be freely admitted around him. If the fit lasts long, I have found a subcutaneous injection of $\frac{1}{36}$ of a grain of atropia in the nape of the neck to be attended with most excellent results, in rousing the patient instantly up.

During the interval, and to cure, we should improve the general health with good diet, exercise in the open air, daily bathing, &c., and in all cases we would suspend the explosion of the nervous system with large doses of the bromide potass., in doses of from ten grains to a drachm, two or three times daily, and continued until we effect a cure by other means.

If the disease depends upon exostosis on the interior of the skull, or upon some organic disease, we can do little but mitigate its severity; but when it is clearly connected with causes that give rise to reflex irritation, or to syphilitic, mercurial or other morbid conditions of the blood, our treatment is attended with decided results.

For controlling the fits, no remedy can be compared to the use of bromide potassa; it is as nearly specific as any remedy can possibly be in removing irritation or congestion from the brain and spinal cord, and is indicated in every case for controlling and keeping in abeyance

the convulsions. This is all; we do not claim for it curative results. An excellent vehicle for administering the bromide is some one of our alterative syrups. Then treat it according to the cause.

If caused by fright or other mental emotions, such remedies as belladonna, stramonium, hyoscyamus, caffeine. The two first remedies should be given in large doses until dilatation of the pupil is effected.

The hydrocyanate of iron may be used in this form of epilepsy with success; begin with half a grain night and morning and increase.

Analine and calabar bean also valuable in this form.

Ice to the spine is a powerful means to produce reflex contraction, and even the alternate use of cold and heat.

If caused by indigestible substances and other agents irritating the alimentary canal, an emetic of comp. powder lobelia, a cathartic of podophyllin and jalapin, followed with tonics, as cinchona, hydrastin.

Turpentine, male fern, oil pumpkin seed, santolin, chelonin, valuable where worms are the cause.

In infantile epilepsy, where we have direct or indirect irritation of the medulla oblongata, from irritation of gums or bowels, the cause must be removed, and the irritable condition of the cerebro-spinal axis subdued with bromide and the application of cold to the spine.

If there is periodicity, quinine, prussiate of iron, gelsemin, and podophyllin.

If caused by masturbation or excessive venery, we must rely chiefly on cinchona, phosphorus, hydrastin.

Phosphate of quinine and hydrastin is useful where there is great waste of tissue, brain substance.

The best form of bath in epilepsy is the nitro-muriatic acid bath. It is a well attested fact, that in all forms of epilepsy there is an excess of alkalies in the system, and this exercises a very deleterious influence in preventing the elimination of products which give rise to additional irritation. Acid baths and acids internally will aid other treatment.

If caused by suppressed menstruation, apiol, betin, cotton root, sabin, iron. If any kind of displacement exists it should be rectified by the proper means.

If caused by the poison of syphilis, mercury, scrofula, or psoric taint, iodide potass., sulphuret potass. baths, irisin, gold, platinum, rumin, stillingia, and a general alterative and tonic course.

If caused by drunkenness, gelsemin, nux vomica, capsicum, arnica.

In diagnosing true epilepsy from the feigned, the following points will be guiding landmarks. In feigned epilepsy, the patient does not fall violently, but falls deliberately to avoid injury. Eyes closed but pupils contract to the stimulus of light; tongue never bitten; face red, congested, instead of being pale; skin is healthy; blow snuff into the nostril, patient sneezes; a proposition to apply the actual cautery to the spine effects instant and permanent cure.

EPISTAXIS.—Bleeding from the nose may occur from a great variety of causes, as blows, plethora, great physical exertion. It is a symptom of various diseases, as apoplexy, heart disease, renal and hepatic disease, fever, scurvy, purpura, leucocythemia.

For the purpose of arresting the hemorrhage, erect posture, removing ties from around the neck, holding both arms above the head, the application of cold to the posterior part of the neck, and direct an atomized spray of either of the following into the nostrils: saturated solution of alum, fluid extract matico, tincture of iron in water, a perchloride of iron or tannin. If atomized spray is not at hand, an injection thrown up the nostrils of the same agents with an ordinary syringe answers the purpose admirably. Styptics may also be administered to correct the morbid condition of the blood, as iron, mineral acids, turpentine, erigeron, ergot, ipecac., nutritious diet.

EPULIS.—Nothing is so effectual in eradicating that peculiar excrescence of the gums, as the liberal application of nitric acid followed with washes of a strong infusion of goldthread.

ERUPTIVE FEVERS.—Fever is a salutary effort of nature for the purpose of elimination of some miasma or poison which has gained access to the system—the intensity of the fever depending upon the amount of poison inhaled and the impairment of the vital forces of the patient. *Idiopathic* fever, a primary impregnation of the blood and nervous system with the miasm; *symptomatic*, or surgical fever, when it depends on local lesion or injury.

Under the term idiopathic fever it is customary to class malarial fevers, as typhoid, typhus, yellow fever, and also those fevers which are attended with a peculiar eruption.

Eruptive Fevers.—The eruptive fevers are continued fevers with the addition of an eruption. The diseases of this class are small-pox, measles and scarlatina.

They bear a strong resemblance to some diseases of the skin, but as they are due to the presence of a miasm inhaled into the lungs, and afterwards affecting special parts, the mode of classifying them under fevers is the proper course to pursue.

These fevers, then, have a common character, a certain period of incubation, a certain time elapsing between the poison being inhaled and the establishment of the fever, a time, also, during which the patient's health is apparently unaffected. The fever, when it makes its appearance, is of an inflammatory or continued type, runs a defined, prescribed course. They are also attended by an eruption which runs through a regular series of changes, and they affect the

DISEASE.	INCUBATION.	ERUPTION APPEARS.	ERUPTION FADES.
Measles,.....	10 to 14 days.	4th day of fever.	7th day of fever.
Scarlet Fever,.....	4 to 8 days.	2d " "	5th " "
Small-pox,.....	12 days.	3d " "	{ Scabs form on the 9th and fall off on the 14th day.

individual not more than once in a lifetime. They arise in all cases from a specific contagion; their progress cannot be stayed or cut short, but their severity can, in all cases, be mitigated or abridged or modified by hygiene, by the most thorough nursing, and attendance to certain rules.

Small-Pox.—Variola, a continued infectious fever, attended with an eruption. Due to the absorption of a specific poison. There are several grades or types, varying in intensity and virulence according to the amount of the poison absorbed, and vital tonicity of the patient.

Chicken-pox, or varicella, a trifling infectious form, almost peculiar to infants and children. This form runs through all its phases in from six to eight days. Sometimes, if the vital forces are low, it runs the usual course. It consists of an eruption of pimples, which, on the second day, become converted into transparent vesicles, surrounded by slight redness. Rash commences on the shoulders and back, and afterwards affects the scalp, sparingly seen on the face. About the fourth day the vesicles form small scabs, which rapidly dessicate. Very little, if any, constitutional disturbance; very little fever. It never occurs but once in the same person; has a short incubation, four days; not liable to small-pox afterward—not, however, positively so.

The only treatment required is small doses of the neutralizing mixture, (aconite and asclepin,) sponging with alkaline wash, and, during convalescence, elixir cinchona et ferri, goldthread, golden tincture, tonic bitters, iron, &c.

Small-pox.—This disease has properly four stages: *incubation*, twelve days; *primary fever*, three days; *eruption*, appearing on the third day of fever; scabbing on the ninth or tenth; falling off on the fourteenth, and, *secondary fever*.

SYMPTOMS.—The period of incubation or latency, lasting twelve days, is succeeded by the primary fever, which is ushered in by lassitude, headache, fever, vomiting, (often persistent,) pain in the back and loins, calves of the legs, stupor, mental depression, rigors, heat of skin, pulse 130, temperature in axilla 100°, Fahr., tongue coated fur-brown, urine scanty; feel the skin about this period, and a gritty feel is communicated to the fingers. These symptoms last for about three days, and on the third day we have an eruption of pimples, which in a week inflame and suppurate. In a large proportion of cases, we have a similar affection of the mucous membrane of the nose, mouth and throat; swelling inflammation of the subjacent cellular tissue. If the vomiting is persistent, the pain in the back, loins, calves of the legs, is severe, with marked nervous irritation, they are precursors of a severe attack.

On the third day of the fever the eruption of pimples, or papulæ, appear in nearly the following order: first, on the face, neck, wrist, then on the trunk, and, lastly, on the lower extremities. A gritty feel is communicated whenever the skin is touched; this is observed

about the fourth day. The papulæ ripen with pustules, suppuration being complete by the ninth day, at which time the pustules break, and crusts or scabs form, and in four or five days more these scabs fall off.

From the moment of infection to the start of the fever, (12 days,) the patient may apparently enjoy perfect health. If small-pox virus is introduced under the skin, the disease is mild, and the period of incubation is but seven days; but this practice is illegal, and contrary to the rules of medical jurisprudence.

The severity of the disease bears a direct relation to the quantity of the eruption, which is an index to the amount of poison absorbed. If the pustules are few, they remain distinct, separate, but, when numerous, they run together, coalesce, and, thus united, they lose their circular form; hence we have a natural division into distinct and confluent; the distinct being seldom attended with danger—the confluent being seldom free from danger. The eruption on the face may be confluent in a large proportion of cases, although it may be distinct and scanty elsewhere; still, if these coalesce, they are confluent. We meet with cases, however, where they are very numerous, but do not coalesce. In confluent cases, symptoms of malignancy and putrescency are not uncommon, which render it a formidable affection.

The grand point of difference between the distinct and confluent forms is, that the symptoms of the latter are more intense and violent; the eruption is out earlier, the eyelids swell more, the parotid gland is affected, salivation, general œdema; the mucous membrane becomes involved; the nose, mouth, throat, larynx are the seat of the eruption; tongue, palate, &c., covered with vesicles; such troublesome complications as erysipelas, phlebitis, glossitis, pleurisy, pneumonia, ulceration of the cornea, suppuration of the ear. But perhaps the greatest difference between the two is the secondary fever, which is slight in the distinct, intense and hazardous in the confluent. It generally appears about the eleventh day of the disease, or eighth of the eruption, and occasionally proves fatal, the system being overwhelmed by the virulence of the poison. No contagion is so powerful, so positive, so intense, as the poison of small-pox. Infection is present all through the case, from the beginning of the latent period to the disappearance of the last crust or scab. One attack perfectly exhausts the susceptibility of the system to all future influence of the poison, as a rule.

PROGNOSIS.—It is seldom fatal to young, healthy persons, but very dangerous to infants and those of a strumous diathesis.

The more confluent the eruption, the greater the danger; the more abundant the eruption, the greater the danger; the eruption indicates the extent of blood poisoning. The period between the seventh and the eleventh day is the most critical. Delirium and suppression of the secretions are unfavorable.

TREATMENT.—The fever, here, is a salutary effort of nature to

eliminate the poison; we must aid nature. Moderate the fever by *c. tincture serpentaria* in sweet marjoram tea or aconite and belladonna. The neutralizing mixture is our best laxative; cooling drinks; alkaline sponging every two hours. Keep up the vital powers by stimulants—milk punch, beef tea, milk. Watch carefully complications. No depletory remedy is admissible where we have a terribly prostrating poison active. Patient should be kept quiet in bed, in a well-ventilated room, free from carpets, curtains, bed-clothing; shirt changed daily; sponge promptly. A disinfectant should be employed in the room. Diet: milk punch, arrowroot, beef tea, gruel, ripe fruit. As a drink, soda water is very grateful; mild laxatives. Give all through the case an infusion of *sarracenia*, belladonna and aconite; as an anodyne, *hyoscyamin*. If the pustules be tardy in filling or maturing, beef essence, milk punch, white of egg. All complications energetically met, never using debilitating remedies.*

For secondary fever, neutralizing mixture, soda water, aconite, *asclepin*, *crawley*. If there is diarrhoea, *hematoxylon*, *gelsemin*, *quassia*, nourishment, beef tea soup, cream, raw eggs, alcoholic stimulants to prevent depression and arrest putrescency.

For sloughy or gangrenous sores, *elixir cinchona et ferri et phos.*, mineral acids, *hydrastin*, milk, essence of beef, air cushions.

To prevent pitting, smear the face well over with sweet oil, wear a mask and carefully exclude the atmospheric air. Olive oil and camphor, glycerine and rosewater, equal parts; lime water; puncturing the pustules, collodion, *gutta percha* and collodion, tincture iodine, water dressing, oxide zinc ointment, black salve.

Measles.—*Rubeola*, a continued infectious fever, preceded by sneezing, watering of the eyes and nose, complete catarrh, accompanied by a crimson rash, and often attended or followed by inflammation of the mucous membrane of the organs of respiration.

Measles are divided into two grades by some; but this division is uncalled for, being merely different degrees of intensity of one affection.

SYMPTOMS.—After a period of incubation, varying from ten to fourteen days, there is lassitude, shivering, fever and catarrh; the conjunctiva, Schneiderian membrane, mucous membrane of the fauces, larynx, trachea and bronchi, become much affected; swelling of the eyelids, suffused eyes, watery, intolerant of light; sneezing, dry cough, hoarseness, difficulty of breathing; drowsiness, great heat of skin, tendency to delirium; frequent, hardened, rapid pulse. The eruption comes out at the end of the third day—seldom earlier, often later. It consists of small circular dots, or spots, like flea-bites, which gradually unite into blotches of a dingy-red

* A specific antidote has been discovered which, if taken internally, will abort the disease. A true specific—all that is necessary is that the patient be competent to swallow, and in forty-eight hours the disease has entirely disappeared.

color, slightly raised above the skin. The rash first appears on the forehead and face, and gradually extends downwards; it begins to fade in the same way, first on the forehead, &c. It produces no marked desquamation which is the characteristic of scarlatina. Diarrhœa often sets in on the rash declining; it is usually salutary. The fever does not subside on the disappearance of the eruption, nor does the severity of the attack depend upon the quantity of the rash. The contagion of measles is strong, being powerful through the latent and active form of the attack. Pulmonary complications, laryngitis, cancrum oris, severe otitis, epistaxis, acute tuberculosis and desquamative nephritis.

TREATMENT.—Confine the patient to a warm, airy apartment in bed; enjoin thorough hygiene; have him sponged every two or three hours with alkaline wash, warm, or warm vinegar and water; then prescribe aconite and belladonna, or sweet marjoram or saffron tea, or asclepias or crawley; keep up mild diaphoresis. If the eruption is tardy, give either c. tincture serpentaria or carb. ammonia. Diet: milk, beef tea, mucilaginous drinks, neutralizing mixture. If the cough be troublesome, give ipecac., senega and belladonna. If there is debility, brandy and cream, cinchona, iron, hydrastin, nourishing food, warm pediluvia, and limbs rubbed with dry mustard.

Scarlet Fever.—This is an infectious, contagious, febrile disease, characterized by a scarlet efflorescence of the skin and mucous membrane of fauces and tonsils, commencing about the second day of fever and declining about the fifth, and almost invariably accompanied by inflammation of the throat and its glands. It is essentially a disease of childhood, of a fatal type, occurring like measles and small-pox, but once in a lifetime.

There are three forms of this disease, three different grades of intensity of one affection, depending solely upon the amount of the poison inhaled, and the power of vital resistance of the patient.

They are thus classified: *scarlatina simplex*, where the skin is mostly affected; *scarlatina anginosa*, in which both skin and throat are implicated; and *scarlatina maligna*, in which all the force of the disease seems to be spent upon the throat.

SYMPTOMS.—In *scarlatina simplex* there is a latent period of from four to six days, after which we have fever, lassitude, rigors, headache. On the second day, eruption appears in the form of numberless white dots, of a bright scarlet hue, which rapidly diffuses itself over the entire body. This eruption terminates by desquamation of the cuticle, which begins about the fifth day. This is merely a scurf on the face and trunk, while on the hands and feet large flakes of cuticle are detached. While the efflorescence is spreading over the entire body, the mucous membrane of the mouth, fauces and nostrils become affected; the tongue at first is covered with a white fur, through which the red, elongated papillæ project, but as this fur clears away, it becomes clear, preternaturally red, and of a strawberry color.

In *scarlatina anginosa* the symptoms are more violent; more headache, more delirium, more heat of skin, more marked prostration, more stiffness of the neck, greater redness and tumefaction of the fauces, uvula, palate, tonsils, and covered with an exudation of coagulable lymph. The eruption is delayed to the third or fourth day; comes out in scattered patches. With its fading on the fifth or sixth day, the fever and inflammation of the throat begin to abate. Severe inflammation of the serous and mucous membranes is to be dreaded. This variety of fever in a strumous subject often assumes a more aggravated form, being accompanied with an acrid discharge from the nostrils.

In *scarlatina maligna* the fever assumes a malignant or typhoid form. Great cerebral disturbance, terrible prostration, low, muttering delirium, sordes on teeth, foetid breath, dark incrustations of coagulable lymph over the uvula, tonsils, and the throat gangrenous. The cervical glands seriously implicated. The rash is still later in coming out, but disappears again in a few hours, and may or may not appear again. Very often fatal termination about third day. This disease is one of extreme danger, and it is only patients of strong vital power that can weather the storm.

SEQUELÆ.—The poison of scarlatina has such a deteriorating influence upon the blood corpuscles, that patients afflicted with the disease are very liable to have their health permanently ruined, and become afflicted with many forms of disease dependent upon a deteriorated nervous system, and imperfect elaboration of the blood, as scrofula in all its myriad forms, renal affection, with albuminous urine; dropsy, about twenty-first day, of the serous cavities; uræmia, diseases of the scalp, acute rheumatism, cardiac inflammation, scarlatinal vaginitis, hydrocele, &c.

TREATMENT.—The simple form of scarlet fever is best treated by an emetic at the start, then an infusion of saffron tea, given in alternation with belladonna; if this does not act well, substitute comp. tincture serpentaria, chloride potass. Occasional vapor bath, alkaline sponging three or four times daily; airy, warm room, proper clothing, spare diet, attention to the bowels with neutralizing mixture. Carbonate ammonia good for twenty-four hours, (no longer,) as it arrests renal secretion; mucilaginous drinks.

Scarlatina anginosa.—Give an emetic of comp. tincture lobelia, vapor bath, belladonna and c. tincture serpentaria, carbonate ammonia, warm sponging, head kept cool, circulation thoroughly controlled with aconite and asclepin, beef tea, broths, milk, cream, white of egg and port wine.

Malignant scarlet fever.—Attend to skin, kidneys and bowels, then give stimulants early, perseveringly, as brandy and milk, carbonate ammonia, capsicum, port wine, cinchona, chlorine, chlorate and permanganate potass., iron, essence of beef, cream, raw eggs, brandy and egg.

If *dropsy* supervene, give comp. powder senna and jalap, podophyllin, nitrate and bitartrate potass., digitalis, queen of the meadow, juniper, elaterin, iron, elixir cinchona et ferri et podophyllin, parsley tea, &c.; warm bath, hot air or vapor baths, and nourishing diet.

ERYSIPELAS.—This disease is caused by a peculiar miasm, a specific poison, that is generated in the system of a patient from some abnormal condition; it is also generated by overcrowding, want of ventilation, and sanitary measures, and when once generated is both infectious and contagious.

The peculiar poison, whatever it may be, germ, animalecula or fungi, has the property of contaminating the blood, and destroying its hæmatin, hence the absence of iron in that vital fluid.

After the inhalation of the miasm, there is a period of incubation varying from three to seven days, during which time all the symptoms of absorption of a deleterious poison is manifested, pain in the head, back, legs, chilliness, rigors, sore throat, general constitutional disturbance, arrested secretions, brown tongue, nausea, vomiting, constipation or diarrhœa, chlorides diminished in urine, often albumen. If on the face, great cerebral disturbance.

The local development of the disease is in the form of a peculiar and characteristic inflammation of the skin or subcutaneous areolar tissue, the redness is livid, momentarily disappears on pressure, diffused, wide spreading, hot, swollen, and the pain is of a burning or tingling character. Any part of the surface is liable to be attacked, the common seat is the face, called *idiopathic* erysipelas; and if it occurs elsewhere, as the result of a wound or scratch, traumatic erysipelas.

The danger is to be apprehended from an extension of the inflammation to the brain or its membranes, or to the fauces, or from direct failure of the vital powers. Poison of erysipelas is identical with the poison of puerperal fever.

Successful treatment in all cases is the following: an active emetic to start with, thorough free vomiting; lobelia is the best emetic given, with bi-carbonate of soda, follow this with a thorough cathartic, comp. powder of jalap and podophyllin, an alcoholic vapor bath, then control the circulation with aconite and veratrum in an infusion of asclepias; if the vital powers are impaired, comp. tinct. serpentaria. Having put the patient upon this treatment, then give twenty drops of the following in a little water every three hours: *R.*—Muriated tincture ferri, ʒi ; sulphite quinine, grs. xx. *Mix.* Anodynes at bed-time, so as to obtain sleep. Confine patient strictly to bed, in a well ventilated room, diet light, milk and egg, beef essence; if any indications of depression, sinking of vital power, give equal parts of the fluid extract of prickly ash and brandy. Establish convalescence upon vegetable tonics.

Locally, paint the erysipelatous blush with tincture iodine, and

over it collodion; if it is the phlegmonous variety, no remedy can excel the sulphite of soda in the proportion of five grains to the ounce of water.

EUSTACHIAN TUBE DISEASES.—Permanent obstruction of the eustachian tube produces exhaustion of air in tympanic cavity; consequently a pressure inwards of the membrana tympani, a forcing together of chains of bones, pressure on contents of labyrinth, an incurable form of deafness; but a much more common cause of deafness is thickening of the mucous membrane of the faucial orifice, a result of inflammation. If the latter condition exists, a general alterative course should be pursued, comp. extracts stillingia and sarsaparilla with iodide potass., an atomized spray of iodine, improve general health, nourishing diet; warm clothing; open air exercise; sea bathing.

FATTY DEGENERATION—Fatty degeneration or decay is peculiar to old age, intemperance, inactivity, cessation of function; a metamorphosis peculiar to muscular fibre, from inactivity and disease, a process of decay and death, the result of some defect in the process of assimilation.

FISTULA IN ANO.—This is caused by the presence of foreign bodies or hardened fæces lodging in the folds of the rectum, and causing inflammation, then ulceration and perforation. It may also be a symptom of the strumous diathesis, where we have an exudation of tubercular matter on a fold of the lower bowel, which softens and ulcerates. It may exist in several forms—as complete, where the fistula passes from the bowel to some part of the nates; blind, external fistula, where the mucous coat of the rectum, after perforation, becomes entirely closed.

The external aperture, often small and difficult to find, generally near the anus, but, perhaps, one, two or more inches distant. Complete fistula, most annoying on account of the flatus, intestinal mucus, fluid fæces passing along its tract, causing irritation, painful spasmodic contractions of sphincter. There is an utter incapability in the nature of fistula to heal or become obliterated when once formed; their internal surface becomes lined with a false membrane, having the power of secreting.

Constipation, when excessive, often leads to the formation of fistula, by distending the rectum, and thus permitting lumps of indurated fæces to burrow in the folds of the bowel, excite inflammation, ulceration and perforation.

The best mode of cure consists in improving the general health by tonics, frequent bathing, and daily injections into the bowel of a lotion of permanganate potassa. Having carried out this treatment for a week or two, the next point to observe is the obliteration or cure of the fistula, and this is best accomplished by destroy-

ing the false or secreting membrane of the fistula, which is incapable of adhesion. For this purpose strong, fuming nitric acid, is a most excellent remedy. Take a grooved silver rod, fill the groove with the acid, insert it up the entire length of the fistula, then turn the rod so as to permit the acid to come in contact with every part of the fistulous tract. It is always proper to empty the bowels before resorting to this operation, and afterwards confine them by means of opium for a week or longer, and for a few weeks afterwards daily injections into the bowels, so as to prevent undue straining on the newly formed parts. Nitric acid, applied in this manner, first destroys the secreting, false membrane which lines the tube, and having done so much, it excites inflammation; plastic lymph is thrown out, and perfect, permanent obliteration.

Various modes of managing these cases, in addition to the above, have been tried, but none that give such good success. Injecting the sinus with tinct. iodine, chloride zinc; division by a ligature to be tightened daily until the parts are cut through, or inserting the chain of the *ecraseur* through the sinus, and at once crushing the parts, or dividing by the knife, and then allow the parts to heal from the bottom.

FRACTURE.—A solution of continuity of bone—*simple* when the bone only is broke—*compound*, when there is not only a division of bone, but a wound with the soft parts communicating with the bone—the bone often protruding. The treatment of fractures is being revolutionized, remodified, and the principles of modern treatment are apparent, reducing the broken parts, maintaining them in proper position when reduced, and subduing unfavorable symptoms. The mode of reduction is by extension, counter-extension, and coaptation. The parts being kept at rest, in proper apposition, with an appropriate apparatus. The position and mode of dressing must vary with the location of the fracture.

After the bone is perfectly adjusted, if the most absolute rest be maintained, the patient's pulse kept at a normal standard, 75 or 80, union of the broken bone will take place by first intention, that is, without the formation of a provisional callus.

If these requirements are not fulfilled, we will have lymph effused from the broken ends of the bone, from the periosteum and soft parts, which lymph by its own vital forces will consolidate in about three weeks and completely embrace the ends of both bones, and in three weeks more consolidation will be so great that the functions of the limbs may be resumed, and in about six months this provisional callus will be absorbed and the bones firmly united.

But if the vital forces are below a normal standard, this effused lymph which forms the provisional callus, will be feeble and incapable of forming a bony union, but sufficient to elaborate ligament with which the two bones are united. Other causes may operate to

the production of an imperfection in the effused lymph, as motion, disease.

Perfect rest, perfect adaptation and good nourishment are requisite for simple as well as compound fracture.

For compound fracture, the great point to aim at is the congealing of all the tissues between the atmosphere and bone, with all the precautions observed in simple fracture. For rendering compound fracture simple, apply the following: *Rx.*—carbolic acid, $\mathfrak{z}\text{i}$; olive oil, $\mathfrak{z}\text{iv}$.—*Mix.* Saturate lint and apply to the wound.

FUNCTIONAL NERVE DISEASE.—The great aim in treatment is to cure disease, or diminish its intensity, and also the reflex excitability of the nervous centres. Under the head of suppression of causes of peripheral irritation, we may class the local application of narcotics to the skin; the application of ice; the thorough destruction of a wound if it contains venom; section of nerve; the application of the caustic potassa to the clitoris in epilepsy caused by masturbation; removal of decayed teeth or tumors, anything which keeps up irritation; any disordered organ should be rectified, and then means to diminish reflex irritability of the nervous centres, as we have developed in epilepsy, hysteria, tetanus, hydrophobia, &c.

Our best means are belladonna, pulsatilla, scutellarin, bromide potass.; calabar bean, codeine, chloride barium; isolating the bed, and keeping a continuous electric current passing through the patient, positive pole on spine, negative on the pit of the stomach, excellent in tetanus and hydrophobia; chloroform, ice, counter-irritation, warm bath, all excellent to diminish the reflex excitability of the nervous system. Sleep is an important consideration where the nerve centres are excited, and in those cases, if there is pain, aconite and belladonna, alternated with that invaluable drug, bromide potass.

GALACTORRHOEA.—This sometimes takes place and is best controlled with the following prescription: *Rx.*—Unguentum belladonna, $\mathfrak{z}\text{i}$; iodide potass., $\mathfrak{z}\text{iii}$; muriate ammonia, $\mathfrak{z}\text{ii}$.—*Mix.* Spread on leather and apply to the gland with firm compression.

GALL STONES.—These usually consist of a solid concretion from bile, is usually formed in the gall-bladder, more rarely in the liver and in branches of hepatic duct. Calculi or stones, when found in the gall-bladder, are globular or oval, or pear-shaped; when formed in branches of hepatic, they are irregular in shape, rough, tuberculated, and of a dark color; when met with in the excretory passages of the liver, they are commonly gritty sand-like deposits or small stones. They are usually composed of cholestérine, choleochrome, earthy and alkaline salts, phosphate and carbonate of lime and magnesia, fatty acids.

Gall-stones are very light in proportion to their size; when

newly passed they sink in water, but if kept a few hours until they become dry, they float. The lightest are composed almost entirely of cholesterine.

A gall-stone obstructing the bile duct, gives rise to severe pain, which is not constant but comes and goes; there is no tenderness on pressure, nausea, vomiting of acid matters, hiccough, flatulence, dyspeptic symptoms, languor, lassitude. If the concretion passes into the intestines, the pain suddenly ceases.

The passage of a gall-stone gives rise to dull pain about the liver, then sudden pain in the region of the gall-bladder resembling colic, intermittent pain; bilious vomiting, and the paroxysms become so excruciating that the patient bends himself double, pressing his hands firmly against the pit of the stomach; the paroxysms increase in intensity, and they may stop suddenly as the stone escapes into the duodenum. Very frequently there is large quantities of acid thrown up, secreted from the surface of the stomach. If the paroxysms continue long the patient suffers from prostration, there is more or less jaundice, periodic rigors.

Calculi in the gall-bladder may exist without producing any morbid derangement. They may set up a low grade of inflammation with pains about the epigastrium, right shoulder and hip; loss of appetite, indigestion, constipation.

A calculi of any appreciable size, when it enters the cystic duct, invariably gives rise to biliary colic. Great pain and tenderness of right hypochondriac and epigastric regions, with nausea, vomiting, rigors, jaundice. The irritation of the stone in passing through the gall-duct causes the vomiting by nervous influence reflected to the muscles that perform the act of emesis. The acid is due to the decomposition of the secretions of the stomach.

TREATMENT.—In the treatment of the symptoms of biliary colic, we should relieve pain. Gelsemin and opium may be given freely without fear, and a subcutaneous injection of hydrochlorate of morphia. Hot vapor bath, fomentations over the liver, and an emetic of lobelia and gelsemin.

If these means fail, give olive oil and gelsemin, as follows: *R.*—Olive oil, $\mathfrak{z}\text{iv}$; gelsemin, gr. i.—*Mix.* Give at a dose. This prescription relaxes and dilates the duct, and permits the concretions to escape. The oil dissolves the stones. If it is a bad case it may be necessary to repeat the prescription several times at proper intervals. Patients afflicted with gall-stones are very tolerant of gelsemin.

Podophyllin is an excellent remedy, alternated with the olive oil. Another class of solvents that have been much employed and have produced permanent cures are alkalies. Under their influence calculi are dissolved or broken up without leaving a trace of their existence. The best alkalies for this purpose consists of the salts of soda, or ammonia. The sulphate of soda and olive oil is excellent, followed up with *nux vomica* and *leptandrin*, *emonymin*, and *nux*.

Friktion, shampooing, douches, electricity, have all been employed to favor the expulsion of stone. The diet should consist of fresh laxative herbs, grapes, fruits, roast or boiled meat, vegetables, farina—a rigid avoidance of fat. Exercise is salutary, it favors the escape of bile into the intestine, and causes a combustion of fat.

GASTRALGIA.—A very common symptom of indigestion, consisting of a partial inflammation of the mucous and serous membrane of the stomach; when bad, it gives rise to pyrosis; usually comes on in paroxysms after eating, and is best relieved in all cases with the following: *R.*—Subnitrate bismuth, \mathfrak{z} iii; ext. nux vomica, gr. x; sulphate hydrastin, \mathfrak{z} ii.—*Mix.* Make 20 chart. One every three hours, and alternate with *R.*—Comp. tinct. cinchona, \mathfrak{z} iv; nitromuriatic acid, phosphoric acid, dil., $\mathfrak{a}\mathfrak{a}$ \mathfrak{z} ii; hydrocyanic acid, dil., \mathfrak{z} i.—*Mix.* A teaspoonful in a glass of water before meals.

GASTRITIS.—Inflammation of mucous membrane of the stomach is a frequent result of the introduction of irritating substances into the stomach; poisons, caustic alkalies, arsenic, emetics and other irritants. It is readily recognized by the burning, pricking or lancinating pain in the stomach, nausea and vomiting, extreme soreness, tenderness, pain on pressure, intense thirst for cold drinks, which are instantly vomited, tongue red at the tip and edges, covered in the centre with a white or yellowish fur; the patient lies on his back or side with limbs drawn up to relax the abdominal muscles; great depression exists, pulse is small or wiry, thread-like; obstinate constipation; disgust at food and warm drinks; scanty, high-colored urine. Death often takes place from exhaustion.

TREATMENT.—To allay the intense thirst, let the patient keep a little ice in the mouth. To control the inflammation, give drop doses of tinctures of veratrum and gelsemium, every hour, in a tablespoonful of slippery elm tea; an enemata of cold beef tea twice daily; sponge the skin every three hours with alkaline wash; over the stomach flaxseed poultices hot and moist, with opium. Rub the following into the axilla and groin every evening. *R.*—Simple cerate, \mathfrak{z} i; morphia, gr. ii.—*Mix.* Keep steadily on, and when inflammation is controlled, establish convalescence upon a careful system of diet, as albumen, milk, farinaceous substances and broths.

This is my usual mode of treatment. If the vomiting is persistent, minute doses of ipecac., sub-nitrate bismuth, are attended with good results; if there is delirium, *belladonna*; if there is hiccough, and bitter eructations, *pulsatilla*; if it depends upon the metastasis of rheumatism or gout, *lithia* and colchicum.

If it is chronic gastritis, this is usually mild, and produces thickening of the coats of the stomach, and often ulceration.

The symptoms of chronic inflammation of the stomach are nearly analogous to dyspepsia, anorexia, tenderness at epigastrium and

sternum, pain and sickness after meals, pyrosis, and general disturbance of the alimentary canal.

The best treatment consists in the removal of the cause, and in administering hydrastin, goldthread, bismuth, nitro-muriatic acid, cinchona, &c.

Inflammation of the stomach frequently terminates in catarrh of the stomach, which, if present, is indicated by indigestion, furred tongue, oppression at epigastrium, vomiting, giddiness, headache. There is also a form of gastric catarrh which co-exists with whooping cough, bronchitis, phthisis and pulmonary emphysema. Congestion of the capillary gastric vessels, with excessive secretion of glairy mucus.

The remedies best calculated to remove this condition are those that impart tone to the stomach, as hydrastin, nux vomica, goldthread, mineral acids, bismuth, cinchona, &c.

Inflammation of the stomach sometimes terminates in ulceration. Ulcer of the stomach is generally round or oval, mostly seated at the posterior surface, lesser curvature, or pyloric pouch. A fatal termination may occur by hemorrhage, perforation, or exhaustion.

Symptoms of gastric ulcer are well marked and characteristic, constant steady pain in the epigastrium, and also pain in the back opposite the one in the epigastria, increased by food or exercise, acid eructations, nausea, vomiting, emaciation, aortic pulsations, if it is a female, amenorrhœa, if the ulcer heals, pains diminish; with care complete recovery will take place. Perforation is not uncommon, then the pain suddenly spreads over the entire abdomen; tympanitis, great anxiety, prostration, collapse and death.

The treatment should be directed to the cure of the ulcer. The first point in the successful treatment of all ulcers is to effectually subdue *pain*, for no breach of surface will ever cicatrize if pain exists; *Indian hemp and opium are excellent remedies to meet this indication* in doses sufficient to get the desired effect. *Rest* is of great importance, complete rest and nourish the patient as much as possible by enemata of beef essence. Probably no remedy excels the permanganate of potassa in ulceration of the stomach, 1 grain in a glass of distilled water, and alternated with bromide of ammonium. If these do not act well, try some of the following remedies, bismuth, myricin, goldthread.

GLANDERS.—Nothing is easier than to produce putrid disease among animals by a neglect of the ordinary laws of health. The blood is capable of acquiring toxical properties from putrid miasma, inhaled by the respiratory apparatus, or by direct inoculation. The poison once generated and introduced acts as a ferment, so that we quickly have the development of a peculiar train of symptoms.

By the operation of the principle of catalysis, one substance may be brought to so act upon another as to develop in it latent

powers and properties not hitherto seen. This is the character of the blood poison *glanders*, which is a malignant disease, infectious and contagious in its character.

This specific blood poison is generated by placing animals in conditions that depress their vital forces, as bad food, imperfectly ventilated stables, &c., and when these primary causes are operating or creating decided depression of the vital force, cold, over-exertion, &c., will quickly excite the morbid condition into active life. Glanders is met with in two forms, which are identical as to their originating from the same poison. Glanders and farcy—the former is where the morbid condition shows itself in the nasal cavities; the latter where the lymphatics are involved; the former most frequently due to direct inoculation of the Schneiderian membrane; the latter due either to inhalation, or to an abrasion on the extremities coming in contact with glanderous matter.

The reception of this poison in all its forms by the human subject creates the most profound depression, languor, lassitude, debility, pain in the head, back, calves of legs, dry brown tongue, arrested secretions. If the virus spends its force upon the mucous membrane of the nose, we have inflammation, ulceration of that membrane, with an offensive glairy discharge, the ulcers scooped out in appearance, and afterwards the whole lymphatic system becomes involved; if the poison gains admission through a scratch, or obtains an ingress by the mucous membrane of the bronchial, the lymphatic system becomes implicated.

The only treatment with which I have had abundant success is the following:—An emetic to commence with of comp. lobelia powder, followed with a vapor bath, and active cathartic. Cauterization of the inoculated parts, then repeated syringings with a lotion of permanganate of potassa; prompt and early opening of all abscesses.

Internally a teaspoonful dose of a saturated solution of sulphite of soda every two or three hours, keeping up active diaphoresis with aselepias or diaphoretic powder. The sulphite of soda is a specific remedy, checks the fermentation quickly, and is the only remedy to be depended on in treatment. Under this remedy I have never failed in the worst cases of glanders. The diet should be the elements of blood, juice of beef, white of egg, milk. If there is any prostration, xanthoxylum and quinine. If the permanganate does not act well, an excellent disinfectant wash is: *R*.—Carbolic acid, ʒss; glycerine, ʒiv.—*Mix*. Inject the nostrils every two hours, and it should be applied to all abscesses.

GONORRHOEA.—An inflammation of the mucous membrane of the urethra, generally the anterior portion, attended with a contagious purulent or muco-purulent discharge.

The cause of the disease is promiscuous sexual intercourse, which creates or develops a specific poison of two different degrees of

intensity; *one* of low power, capable of causing an inflammation of the mucous membrane, and if applied to an abraded or fissured portion of the prepuce, or glands penis, a soft chancre, which never contaminates the constitution; *the other*, of a higher power or greater intensity, if applied to the mucous membrane, will excite an inflammation, and to the cuticular covering, more especially if there is an abrasion, a hard chancre, which, if not destroyed before the eighth day of its existence, will contaminate the constitution.

The symptoms of both grades, when applied to the mucous membrane, are identical. No true distinctive mark but inoculation. Taking a little of the pus on the point of a lancet, and inserting it under the skin of the thigh, the resulting pustule will be either a soft or hard chancre, according to the *grade of the poison*.

About the third day after illicit intercourse, or the application of the poison to the mucous membrane, there is heat, itching of glands penis; fullness and redness of the orifice; first a slight milky discharge, which quickly becomes muco-purulent; great scalding after micturition; pain in the groin, irritability of the bladder, weight and dragging pain about the testicles.

These symptoms are frequently complicated with *painful erections or chordee, balanitis, hemorrhage from urethra, retention of urine, abscess in the groin, prostatitis, cystitis, orchitis, gonorrhœal ophthalmia, gonorrhœal rheumatism*.

THE TREATMENT here is plain, *abortive* and *curative*. If the patient is seen inside of forty-eight hours from the appearance of the symptoms, we often can succeed in aborting it by one or at most two injections of either of the following: *Ry.*—Aqua, dist., ʒi ; nitrate of silver, grs. xxxvi.—*Mix*; or the sesqui-carbonate of potass. In using this injection, and, indeed, all other injections, the patient should first urinate, then the injection should be thrown in, using some degree of compression at the posterior part of the urethra, so as to prevent the injection acting upon parts that are sound.

The action of the nitrate of silver, in the strength of about forty grains to the ounce of water, and thrown into the urethra, profoundly modifies or changes the character of the inflammation from a specific to a simple form.

This mode of abortive treatment is seldom attended with beneficial results later than two or three days after the supervention of the characteristic symptoms.

After the disease is established, then the following mode of treatment is best calculated to subdue the inflammatory condition rapidly: have the patient to wash the penis frequently, and use the following injection every three hours, observing the usual precautions, viz: *Ry.*—Aqua, distilled, ʒiv ; permanganate potass., grs. xx.—*Mix*.

Internally we have two remedies that are truly curative, and we would give them either alone or in alternation: saturated tincture cannabis sativa and staphysagria. Dose: fifteen drops every three

hours, in a glass of water. Bowels well regulated with salines, unstimulating diet, plain water for a drink, perfect rest in the recumbent position, and every night, an hour before retiring, give the following at a dose: *Rx.*—Bromide potass., 5ss; lupulin, (Keith's,) grs. v; gelsemin, grs. ss.—*Mix.*

With this treatment the case will terminate inside of two weeks, without any of the complications which are so common under the old mode of treatment, by copaiba, cubebs, nitrate potass., buchu, &c.

For the relief of painful erections or chordee: I have found nothing to excel the following: *Rx.*—Bromide potass., 5ss; Camphor, grs. x; lupulin, grs. v; gelsemin, gr. ss to gr. i, at bedtime.

For the relief of scalding: warm baths, buchu and nitrate potassæ.

For the balanitis: wash every two hours with strong solution of permanganate potassa, and give drop doses of con. tincture of gelsemin every hour.

For the hemorrhage from the urethra: the application of cold, and gelsemin and erigeron are our best remedies. Turpentine also valuable.

For the retention of urine: warm bath, suppository of belladonna, gelsemin, muriated tincture iron.

For bubo: if in the early stage, rest, free secretions, and the application of the following, with pressure: *Rx.*—Stramonium ointment, 5i; iodide potass., 5iii; muriate ammonia, 5ii.—*Mix;* or, an ointment of iodide of lead; but if well advanced, and suppuration inevitable, large warm emollient poultices, and as soon as fluctuation is detected, free incisions. The subsequent dressing to consist of: *Rx.*—Carbolic acid, 5i; olive oil, 5iv.—*Mix.* Saturate pledgets of lint and insert into the interior of abscess, and dress over and above with the same. With this treatment cicatrization is rapid.

For orchitis: this seldom occurs unless cubebs and copaiba have been given, or the discharge has disappeared suddenly. It is best treated, if due to a metastasis of the inflammation, by injecting the urethra with sesqui-carbonate of potassæ, and thus attracting the inflammation from the seat of the testicle; if not due to that cause, the application of cold, as: *Rx.*—Hydrochlorate of ammonia, 5v; nitrate potassæ, 5iii; water, Oss.—*Mix.* Saturate a piece of linen with it, and cover over with oiled silk. Rest, recumbent position, free secretions. Keep pulse at 70 with veratrum and gelsemin. Another good local application, in an acute attack is: *Rx.*—Aqua, distilled, Oss; muriate ammonia, 5ii; tincture iodine, 5i.—*Mix.* Apply as above. For the induration, the result of inflammation, the following is excellent: *Rx.*—Ointment phytolacin, stramonium, aa 5i; iodide potass., 5iv; muriate ammonia, 5v; iodine, grs. x.—*Mix.* Spread on muslin, and apply compression and suspensory bandage, regulated secretions, and iodide potass. internally.

For prostatitis: control febrile symptoms thoroughly with gelsemin, regulated secretions, and over the perineum apply the following: *Rx.*—Tinctures acouite and belladonna, chloroform, aa, on a com-

press, covering over with oiled silk; or, instead, benzine, otherwise a most thorough alterative course should be enjoined, iresin, gold, iodine, aluin.

For the cystitis: our best remedies here are gelsemin and fluid extract buchu, warm fomentations over region of bladder, perfect rest, secretions regulated with salines, diuretics of the class. If the ease runs a chronic course, weak injections of nitric acid into the bladder once a day, mineral acids and iodine internally.

For the gonorrhœal ophthalmia: The application of gonorrhœal matter to the conjunctiva excites a violent form of inflammation, which runs a rapid course. It is best treated by an emetic, comp. powder lobelia, followed with an alcoholic vapor bath, active secretions, then place the patient under the influence of gelsemin and veratrum. Drop into the eye a few drops of a solution of atropia, gr. i, to \mathfrak{z} i, water thrice daily, and every two hours inject under the lids; permanganate lotion, grs. x to \mathfrak{z} i, water; a piece of muslin saturated with the same, kept constantly applied over the eye; treatment thorough both day and night; patient kept quiet, freedom from light or sound. If the febrile symptoms run high, active counter-irritation to nape of the neck.

For the gonorrhœal rheumatism: There seems to be an erroneous opinion in the minds of the profession as to the cause of rheumatism occurring during a case of acute rheumatism. This disease can only be developed, like every case of rheumatism, from the presence of lactic acid in the blood; an acid generated during the process of imperfect digestion, mal-digestion. The presence of this is indispensable as a predisposing cause of rheumatism, and any depressing cause may execute it, provided acidity exists. This is clearly demonstrated from the acid urine and perspiration.

If this is granted, the treatment is plain, alkalis, diuretics and diaphoretics; give the following: \mathcal{R} .—Wine colchicum, rad. \mathfrak{z} i; quinine, grs. xx.—*Mix.* Half a teaspoonful every two hours, until it acts upon the bowels, then half a teaspoonful bi-carbonate soda thrice daily, and comp. tinct. serpentaria to allay pain and excite perspiration. If the ease does not give way promptly, iodide potass., mercurin.

Gleet: is often a sequel of gonorrhœa, when that has continued for a long period, in a serofulous or debilitated patient, and is chiefly characterized by a transparent mucous discharge, with no scalding or pain. There is often an irritable condition of the bladder or its neck, or of the prostate, causing the patient to micturate frequently, sometimes pain in perineum.

Gleet is due to a variety of circumstances, as stricture, debility of the mucous membrane of the urethra, contraction, &c. If due to permanent or organic stricture, mechanical dilatation for a period of months; if due to contraction, bougies smeared with belladonna ointment; if due to relaxation, astringent injections; if there is general debility in the parts, with irritation about the

prostate, neck of the bladder, then warm baths, suppositories of belladonna, fluid extracts of buchu, uva ursi, hydrangea, alnuin, stillingia, iodine, gold, &c., counter-irritation of the under surface of the penis and over the region of the kidneys. In all cases there is less or more constitutional debility, tonics are the remedies. *Muriated tinct. iron*, 20 drop doses every three hours is excellent; *comp. tinct. cinchona* and *nitro-muriatic acid*; *phosphoric acid* and *glycerine*; *nux vomica*, salt water bathing, nourishing diet.

Gonorrhœa in the female is much more easily controlled, there being fewer of the complications to contend with. It consists of inflammation of the urethra, vulva, vagina, and canal of cervix uteri.

The best treatment consists in vaginal injections of lotions of permanganate potassa every three hours; hip baths, saline cathartics, rest, and the ordinary doses of *cannabis sativa* or *staphysagria*.

GOUT.—This disease depends upon an increase of lithic acid in the blood depending upon an excess in primary digestion, besides, there is also an excess of soda which unites with the lithic acid, and produces a compound known as lithate of soda, which exudes into the cellular tissue, and constitutes tophaceous deposits.

The generation of this acid in the system would seem in some cases to depend upon some hereditary taint; aside from this, high living, want of exercise, use of acids or agents that undergo acetous fermentation, as ale, wines, excess, irregularity, may be enumerated as exciting causes. In all cases the defect is in the primary elaboration of the food, so that gastric or intestinal derangement, impaired appetite, furred tongue, acid or bitter eructations are invariably present.

The exudation of this lithate of soda generally occurs on the smaller joints, as the ball of the great toe, and when exuded, the parts become swollen and very sensitive. The parts around become œdematous, numb, or prickling, and there is nightly exacerbations of increased pain and fever, which subside in the course of from seven to ten days, and leave the patient with a debilitated and œdematous limb.

In the treatment of gout the diet is of great importance; it should be very light, chiefly amylaceous, and all alcoholic stimulants carefully avoided. The only treatment available is *colchicum* and alkalies in alternation.

Colchicum is prompt in its action, and beneficial when given in doses so as to act on the bowels slightly—it speedily moderates the inflammation and arterial excitement, mitigates the severity of the pain. If the symptoms are not acute, still the *colchicum* acts specifically in small doses, increasing the excretion of urea. An excellent formula is the following: *R*.—Wine *colchicum*, rad., ʒi; sulph. quinine, grs. xx.—*Mix*. Half a teaspoonful repeated as indicated, and alternate with some alkaline salt.

Carbonate of lithia possesses remarkable therapeutic properties, being one of the most soluble salts of uric acid that is known.

Benzoic acid should be given after meals in order to prevent the formation of the tephaceous concretions.

Phosphate of ammonia decomposes the insoluble lithate of soda, and if we continue it for some time, where thickening of the white tissues exist, it deprives the blood of the lithic acid and soda, and creates a demand for them, which leads to absorption of those elements from the tissues where they have been deposited.

HAEMATEMESIS.—Hæmorrhage from the stomach is common, because the stomach is lined with a membrane which furnishes large secretions, is very vascular, and bleeds from the slightest congestion. The stomach may become congested from a great variety of causes, as intemperance, suppression of accustomed discharges, as menses; engorgement of the liver or spleen, pancreas, organic disease of the heart or liver, cancerous ulceration, injuries, changes in the blood.

The blood vomited may be considerable as regards quantity; blood not frothy, of a dark color, and mixed with food.

It must be treated according to its cause; but the general treatment in all cases must be perfect rest in the horizontal position, abstinence from food, cold over the region of the stomach.

If due to amenorrhœa, or suppressed menstruation, our best remedies are ipecac., hamamelin, gallic acid, Collinsonia, macrotin, ergot.

This form of hæmatemesis from deranged menstruation is easily recognized by its monthly occurrence, absence of the catamenia, and the absence of organic disease of the heart, liver, or stomach.

If due to ulcer of the stomach, elm in water is excellent for a drink, total absence of food, subnitrate of bismuth, permanganate of potassa.

If due to organic disease of the liver or heart, it should be treated on general principles, removing the cause of obstruction in liver and chest, for, if we allow the stomach to remain permanently congested it leads to gastritis.

HAEMATURIA—Hæmorrhage from the mucous membrane of the urinary apparatus, the kidneys, bladder, or urethra, is caused by disease or calculus, some morbid poison in the blood, or diseased condition of the urethra or bladder.

The urine is usually smoky, or of a black hue, or of a port wine tint, albumen or pus often present. If from the kidney, the blood is equally diffused through the urine; if from the bladder or urethra, blood comes away after passing clear urine, renal calculi, cancer cells, blood casts of renal tubes often present when the location or seat of hæmorrhage is the kidneys.

The common cause of hæmaturia is from the irritation of stone or malignant disease, and the diagnosis of the two is usually simple.

In *malignant* disease, the blood is generally passed in larger quantity than in calculus of the kidney, and there is more tendency to nausea, anæmia, cachectic condition, peculiar deep dull aching or lancinating pain, and careful examination of the abdomen often reveals a tumor; in calculous affections, a microscopic examination of the urine generally reveals pus, and the hemorrhage usually occurs after exertion or exercise, also the character of the urine and diathesis.

When hæmaturia arises from malignant disease or stone, the best mode of treatment consists of rest in the recumbent position, cold applied to the loins, and the exhibition of large doses of gallic acid, or remedies that contain that agent. Gallic acid, when introduced through the digestive organs into the blood, passes the round of the circulation unchanged, and reappears in the urine, and forms a positive astringent to mucous surfaces.

Gelsemin is another remedy of great power, and is well adapted to those cases where calculi are the cause; where our object is to render the mucous membrane capable of bearing the presence of calculus without inconvenience. It also has a beneficial effect in relaxing the spasm of the ureters, and permitting the passage of the irritating body; erigeron, turpentine, muriated tinct. iron, lycopin, may also be given with advantage.

If it depends upon morbid states of the blood, iron, permanganate potass., carbolic acid.

If it depends upon some morbid condition of the urethra, oil erigeron, and gelsemin, application of cold. In vesical hemorrhage, iron, mineral acids.

HAEMOPTYSIS.—This is usually a symptom of phthisis, and often appears suddenly in individuals who do not exhibit any signs of the disease. In other cases the sputum may be more or less tinged with blood; and if it occurs from the softening of a tubercle over a large vessel, there may be violent hemorrhage. It is also a symptom of organic disease of the heart, and may occur at variable intervals.

In hæmoptysis dependent upon softening of tubercular deposit, the blood is usually coughed up in mouthfuls, blood frothy and of a florid red color, mingled with sputum.

In all cases the best remedy is perfect rest in recumbent position, and avoidance of every kind of excitement, bodily and mental. Large doses of gallic acid are very valuable; erigeron is a positive styptic to mucous surfaces, so is turpentine and carbolic acid. Lycopin is of utility, mineral acids increase the fibrine in the blood, and aid coagulation. Ipecac. causes more rapid coagulation on account of its nauseating effect. Chloride of sodium, tinct.

ferri, chloridi, alum are of undoubted utility; gallic acid, oil of erigeron, and chloride of sodium are preferable to other astringents, because they are positive and do not constipate.

HEMORRHAGE—An escape of blood from the vessels in which it is naturally contained constitutes hemorrhage. There are various forms.

Traumatic hemorrhage (when a vessel has been directly divided,) is the result of injuries or operations, and the only safe reliance is tying the bleeding artery, or applying acupressure, or torsion, or styptics. Ligation and acupressure are best adapted to vessels of the first and second order; torsion, or twisting, if the vessel is of ordinary capacity.

Arterial hemorrhage is easily recognized by the character of the blood, being of a vermilion color, and it escaping in jets synchronous with the action of the heart, and styptics are not well adapted for controlling it unless the vessels are of small size.

Spontaneous or passive depends upon constitutional causes, as inherent weakness of constitution, debility, and is best controlled by styptics, as iron, mineral and vegetable acids. From the latter class, there is none superior to carbolic acid, being well adapted for a styptic for wounds, and also internally for rendering the blood more coagulable. It is superior to iron or any other styptic.

HEMORRHOIDS.—These are met with in two locations, either external or outside of the sphincter muscle, sometimes they exist together.

Both forms in their primary condition depend upon a varicose condition of the veins of the rectum. Debility or weakness of the veins of the rectum is the predisposing cause, and with this condition existing there is a congestive condition of the pelvic circulation, which involves not only the rectum but the whole digestive tract. Various conditions may bring about an impairment of the vascular and muscular structures which surround the veins, with a subsequent relaxation and permanent dilatation or varicose condition of the vessels besides weakness. The most common exciting cause of hemorrhoids is habitual constipation, which is followed by headache, cough, intestinal irritation; mania, hypochondria, neuralgia, dyspepsia, &c. Other causes, as drastic cathartics; ascarides, horse-back exercise, protracted diarrhœa, sedentary habits.

External piles, if indolent, are troublesome, only from their bulk, but if they become congested or inflamed, they may give rise to tenesmus, back-ache, irritability, uterine irritation.

Internal piles are met with as dilatations of plexus of hemorrhoidal veins, in which the blood has coagulated; also as spongy

vaseular growths, resembling erectile tissue; also as pendulous tumors, composed of fibro-areolar tissue.

This form of hemorrhoidal tumor protrudes during defecation, as their pressure produces paralysis of the sphincter ani, that muscle becomes powerless, relaxed, they protrude permanently, only when the patient is in the recumbent position. Loss of blood often considerable, great uneasiness about the rectum, tenesmus, irritation of bladder, and of the uterus in women. Mucopurulent discharge, derangements of all the functions.

In the TREATMENT, the grand indication is to get rid of the constipation, and this should be accomplished with diet, ripe and wholesome fruits, and the habitual use of cold water as a drink. Enemata of cold water daily, and if they are much inflamed and very painful, great service will be derived from the external application of cold water.

If medicinal agents are required to overcome constipation, give a combination of *nux vomica*, *leptandrin* and *juglandin*, sufficient for the purpose. Then with special remedies we should tone up the varicose veins of the bowel—for this purpose, nothing can excel the *hamamelis*, given internally, and used in the daily enemata of cold water. The morbid condition responds to the action of the drug. Our next best special remedy is the pile-wort, administered internally in tincture or decoction. It also makes a valuable ointment for external piles. The ointment is made as follows: chop the leaves fine, cover over with melted lard and boil till they are crisp; then strain off the lard, which is converted into a most excellent remedy for piles, superior to gall or any other application. An ointment made of the oil of the horse-chestnut is also extremely valuable, and the oil of the same plant given internally in doses of from ten to thirty drops. If there is great congestion, I have derived most satisfactory results from a poultice of mullein leaves.

Nitro-muriatic acid is specially indicated in all forms of piles. A peculiar action on the hepatic function is well appreciated here; give in comp. tincture of bark.

Sulphur in small doses is of utility, phosphorus, *sepia*, *pulsatilla*, *tormentilla*, *benzoine*, are all useful.

For bleeding piles, an ointment of the perchloride of iron or carbolic acid and glycerine.

For their radical cure, neither the ligature, nor excision, nor any other destructive mode is so valuable as the application of chromic acid. It is convenient of application and does not spread nor excite much inflammation like other counter-irritants.

HEADACHE.—This symptom depends on various causes, and is connected with different morbid conditions, as organic headache depending upon disease of the brain; plethoric headache, depending upon congestion of cerebral vessels; bilious headache, depend-

dent on a lethargetic condition of the liver or stomach; nervous headache, due to debility and other causes. It is impossible to obtain an accurate division; for, in a majority of cases, the actual condition of the vessels at the time of the existence of the headache is in a state of congestion. Exhaustion from fatigue, or from loss of blood, or from over-excitement by mental or bodily exertion, all tend to produce a state of debility in the vessels of the brain which favor congestions.

Organic headache.—This is generally due to some disease of the brain or membranes. Its characteristics are, continuous pain in the head, vertigo, vomiting, confusion of mind, noises in the ears, the pain, besides being continuous, is sharp, dull, or lancinating, more severe in the meninges than of brain substance. If the pain is due to inflammation, it is intense, increased by noise, heat or motion.

Plethoric headache.—Essentially depends upon congestion of the brain or its membranes; the sanguine temperament, constipation, sedentary habits, high living, too much sleep, suppression of some secretion, are all predisposing causes; whereas, stooping, certain positions or occupations are exciting causes.

Bilious headache.—This is common to patients of a bilious temperament, whose liver and digestive apparatus is enfeebled, or deranged, the tongue is mostly coated, the breath offensive.

Nervous headache.—This is commonly met with in patients of a nervous temperament. It is that form of headache which we have present in anæmia, albuminuria, from the irritation of decayed stumps, malaria, and other toxical agents, acting on the nervous system; it is present in all forms of exhaustion, over-lactation, hemorrhages, hysteria.

The general indications of treatment are, first of all, to correct the secretions, liver, skin and kidneys, attend to any dyspeptic symptoms—have a well-regulated diet; tobacco, tea or coffee forbidden—daily shower baths—remove the cause.

In organic headache, attention should be paid to the cerebral condition. Large doses of stramonium, or belladonna, or aconite, rhus and phosphorus are of utility.

In rheumatic headache, macrotys, colchicum, quinine, sulphite of soda.

In catarrhal headache, aconite, aselepias, or belladonna, vapor bath.

In bilious headache, an emetic of lobelia, follow with one of the following pills every three hours: *Ry.*—Podophyllin, gr. v; leptandrin, euonymin ã ã gr. xxx; ext. nux vomica, gr. x.—*Mix*, make thirty pills.

In headache from constipation, our best remedy is nux vomica.

In headache from plethora, a most active condition of the secretions, even hydragogue cathartics are admissible.

If due to malaria, gelsemin, prussiate iron and quinine are positive.

HEPATIC DISEASE.—The liver is the largest and most important gland in the body, being one of the great decarbonizing organs. In order to the maintenance of health, it is indispensable that the lungs, skin and liver perform their appropriate share of the work; for, if the liver is too much taxed, we have a morbid condition produced. If the function of the liver is impaired, the stomach and large intestines, and, indeed, the whole system, becomes deranged. If malaria be present, and the vital forces low, there is still a greater tendency for the portal circulation to become engorged.

Hepatitis.—The liver, from various causes, is liable to take on inflammation, either of an acute or chronic character.

The characteristic symptoms are, pain in the right side, shooting in the back and right shoulder, increased on pressure; difficulty of reclining on left side; may be jaundice, with cough, and synocha. It may terminate in any of the results of inflammation, but usually by resolution. The causes are those of inflammation in general; but heat, malaria, &c., predispose to it; hence its frequency in our climate. Immoderate use of alcoholic liquors is a very common cause.

The treatment must be very energetic; control febrile symptoms with aconite, veratrum and asclepias, alternated with six-drop doses of nitro-muriatic acid, in water, every three hours; sponge the patient as often with water acidulated with the same acid. This will excite a new action in the granular structure of the liver. The best counter-irritant is to paint the pure acid over the region of the liver, and keep cloths, wet with the same, over the entire region of the organ.

Inflammation of the liver may be suspected from the existence of the symptoms above mentioned in a low degree; enlargement, constant dull pain in the region of the liver, sallow countenance, high-colored urine, clay-colored fæces, &c.

The great object in treatment is to excite a new action by means of appropriate remedies, such as nitro-muriatic acid, nux vomica, leptandrin and podophyllin.

The nitro-muriatic acid has often been successfully employed, especially in chronic hepatitis, in all cases where it is associated with constipation and dyspepsia; it has a peculiar influence on the biliary secretion, and seldom fails to determine the action to the skin.

Nux vomica is of rare value where the disease is the result of indulgence in the too free use of alcoholic stimulants; also, where there are excessive sensitiveness of the region of the liver to the touch, pressure in the hypochondria and region of the stomach, bitter sour taste, vomiting, thirst, headache, and voidance of red urine.

Leptandrin.—This remedy can scarcely be over-valued in the treatment of hepatitis; it altogether supersedes the use of mercury.

It augments the biliary secretion efficiently though gradually, correcting the secretion, and securing restoration to the healthy action of the bowels, where they have been affected with diarrhœa, cholera infantum, dysentery or constipation; equally appropriate where there is habitual torpor of the liver, jaundice, dyspepsia or hemorrhoids.

Podophyllin.—This remedy is peculiarly valuable, acting almost as a charm as a specific to the disease. Moreover, its curative virtues seem to be appropriate to all the leading symptoms accompanying this affection. Some of these are: voracious appetite; nausea and vomiting after a meal; fullness of the head; water-brash and heartburn; sensation of emptiness in the epigastrium; stitches from coughing, and depression of spirits accompanying gastric affection. A sensation of fullness on the right side of the abdomen; dragging weight in the region of the descending colon; colic, with pain in the transverse colon, followed by diarrhœa; pain in the bowels relieved by bending forward and by warmth. Valuable also in chronic hepatitis, with constipation, flatulence and headache; also, in chronic diarrhœa, with prolapsus ani during stool, and from the least exertion.

Chronic Hepatitis.—The symptoms are similar to those of the acute form, but less severe in character. Great weakness and loss of energy, with inclination to sleep the greater part of the time; despondency and indifference to life; and enlargement and induration of the liver. It often succeeds, and is a result of dyspepsia. Suppression of the various discharges, depression of spirits, sudden pecuniary losses, want of exercise, &c., exert a potent influence in inducing this affection. The skin is dry and harsh, and to overcome this condition, the daily use of cold *sponging* and *bathing*, succeeded by vigorous exercise, is an excellent adjunct to other medical treatment in securing a restoration of the cutaneous functions.

Hypertrophy of the Liver.—Prominent symptoms are, weight in the right side of the abdomen, with sharp pain; obstinate constipation; urine scanty, which at first is colorless, then turbid, with brick-dust sediment; loss of appetite, despondency, desires for death, with inclination to suicide. Resistance of the right hypochondriac on palpitation. Three hard lumps may be felt under the false ribs, belonging to the thin edge of the liver; pressure on this part causes sharp pains and great difficulty of breathing. The chloride of gold is the appropriate medicine; no less suitable for the moral than the local symptoms, but most valuable in its curative effects when both trains of symptoms manifest themselves.

Fatty Degeneration of the Liver.—The superabundant fatty matter in the liver exists in the form of oil-globules within the proper nucleated cells of the affected organ. Both the number and size of these oil-globules is enormously increased. A half of the entire bulk of the liver is composed of them in many cases, and the organ

is much larger than natural. When the quantity of oil is *less*, the liver presents what is known as the "nutmeg" appearance.

The distention of the abdomen always causes inconvenience, but the functions of the organ may not be much deranged. The disease advancing, the augmentation, the increase of the fatty matter, which was first destined to form a portion of the bile, becomes a poison obstructing the process of secretion.

DIAGNOSIS.—Wherever there is enlargement, to any great extent, in the hepatic region, in a person of a lymphatic temperament, the existence of this disease may be suspected. As the disease advances the nature of it will become more apparent.

Cancer of the Liver.—The grand characteristic symptom is enlargement of the liver till it reaches below the false ribs, it may be to the brim of the pelvis; is irregular and knobby to the feel on applying the hand, its surface being covered with cancerous tuberculated growths. The size is diminished in but a few cases. The enlargement is progressive, occurs in the middle of life; the cause is eminently obscure.

Constant pain and tenderness are also decisive symptoms of cancer. Iodine, aconite and cannabis are the most useful remedies. The treatment does not differ from that recommended as the general treatment of cancer. The prognosis is confessedly unfavorable, the cases usually having a fatal termination.

Inflammation of the Gall Bladder and Ducts.—**SYMPTOMS.**—Pain in the situation of the common duct; fever, constipation, nausea and vomiting. Mechanical irritation of the gall stones is the cause of this affection, which becomes aggravated by the thickening of the lining membrane of the ducts.

The early appearance of a large, movable, pear-shaped tumor, occasioned by projection of the gall bladder, which is painful and tender, distinguishes it from inflammatory jaundice.

Ulceration of the Gall Bladder.—This lesion often occurs in the severer forms of remittent fever. In temperate climates it is associated with the presence of gall stones, which so often close the cystic, or even the common biliary duct. This last form terminates in incurable jaundice. Cases occur in which the gall duct becomes closed, and the parenchyma of the liver atrophied; in these cases the *secretion* and *excretion* of the bile is suspended. The continuance of life, in such cases, depends on the condition of the other chylipoetic viscera, the nature of the food taken, and the condition of the other excretory functions. The gradual but progressive wasting from impaired nutrition brings on death as the ultimatum.

Jaundice.—Icterus is a morbid yellowness of the skin, eye, and other parts. It is met with in various degrees, yellow, green, or black jaundice,—jaundice from suppression and reabsorption of bile. It may occur suddenly or after several days of depression, the white of the eye becomes yellow, then the roots of the nail, face, neck, trunk and limbs, urine like porter, stains linen yellow,

and it becomes green on the addition of nitric acid, stools lead colored, almost white; bitter taste in the mouth and general depression.

Nearly all affections of the liver produce jaundice, but it is most frequently traceable to the non-removal of bile from the blood by the liver, or obstruction to its transit after secretion, through the intestinal canal whence it is reabsorbed; malaria, cold, damp, hot weather.

Our two best remedies in jaundice are podophyllin and nitro-muriatic acid, given in small doses, in alternation—nitro-muriatic acid baths.

HERPES.—A transient non-contagious skin disease, consisting of clusters of vesicles resting upon inflamed patches of the skin, of irregular size and form. It is, properly speaking, one of the results of inflammation of the skin—its characteristics being clustered vesicles upon an inflamed patch. There are numerous varieties, some consisting merely of vesicles; in other cases they run into each other, producing excoriations, and their cure being intractable.

The best mode of managing these cases consists in regulating the bowels and diet, inculcate thorough hygiene, giving internally fluid extracts yellow dock, stillingia and blue flag, and locally to the eruption apply the following: *R.*—Aqua, 5v; alcohol, 5i; iodine, grs. xv; iodide potass., 5ss.—*Mix.* Saturate a piece of fine muslin, and apply for several hours daily.

HERNIA.—Any tumor formed by the displacement of a viscus, or a portion of the viscus, which has escaped from its natural cavity by some aperture and projects externally. There are numerous varieties, but abdominal hernia is the most common, and the viscera most liable to hernial protrusion are the same, intestines, omentum and arch of the colon.

The *predisposing* cause of hernia is some weakness of constitution or of location, or congenital deficiency, and the *exciting* cause, violent muscular exertion, as lifting, &c. The most frequent sites are those locations where muscular and tendinous structures are weakened to allow of the exit of the spermatic cord in the male, and the round ligament in the female, or of the large vessels to the lower extremity, as the inguinal and crural canals.

A hernia is composed of a sac and its contents. The sac is a portion of the parietal or reflected layer of peritoneum, which the protruded viscera push before them in their escape, and forms a pouch containing them. It very soon contracts adhesions to the surrounding cellular tissue, and does not return to the abdomen unless the viscera are replaced. If the hernial tumor increases in size, so does the sac, partly by growth, or distention, or laceration, or unravelling, or by fresh protrusions of peritoneum. Its neck is

often the seat of constriction in strangulated hernia, and a body which is usually pyriform or globular.

Hernia is named according to its location, as femoral, or inguinal, and according to its condition, that is, the condition of the protruded viscera, which may be *reducible*, or returnable into the abdomen; *irreducible*, not returnable into the abdomen; *strangulated*, subject to some constriction.

Reducible hernia is a soft compressible swelling, appearing, at some part of the abdominal parietes, increases in size when the patient stands up; dilates when he coughs, and diminishes or disappears when the patient lies down; if it contains intestine, the tumor is smooth, round, elastic; if omentum, the tumor is flat, inelastic, flabby, unequal to the touch.

The reduction is effected by the taxis, that is, properly directed pressure should be applied, the intestine or omentum returned and retained in its normal position by a truss; and if this is perfectly adapted, pressure well maintained, a radical cure may be effected. There are various proceedings that may be resorted to for effecting a radical cure; the application of the irritating plaster over the part whence it protrudes, and over and above all the truss. This excites adhesive inflammation, plastic lymph is thrown out, a firm barrier is built up against future protrusion. Another excellent method is, to take an ordinary subcutaneous syringe filled with tincture of iodine, or cantharides, and insert the tube into the narrow orifice through which the hernia had escaped, and throw in a few drops of the irritant, and thus excite adhesive inflammation. The hernial tumor in all cases must be reduced prior to such an operation. Other methods are resorted to for accomplishing the same results, as the insertion of a ligature brought through the parts, and held there until inflammation has done the work.

Irreducible hernia exists when the protruded viscera cannot be returned into the abdomen, although there is no impediment to the passage of their contents or their circulation.

Adhesions, membranous bands, organic change, are a few of the causes that render a hernia irreducible.

If this form of hernia is left alone, there is a tendency to gradual increase; and to prevent this, it should be supported by a concave pad, and if large, a suspensory bandage should be worn, and bowels well regulated, avoiding violent exercise, as lifting heavy weights.

Strangulated hernia exists when the contents of the protruded bowel cannot be propelled onwards, and there is an obstacle to the return of the venous blood from a twist or turn of the bowel. Various circumstances tend to cause strangulation, sudden distention, violent exertion, spasm, &c., &c. The seat of structure is at the neck of the sac, for it is at that part that we invariably find the turn or twist in the protruded viscera.

The symptoms here are well marked, perfect obstruction of the bowels, vomiting, symptoms of peritonitis.

The treatment here is plain; resort to the taxis, and make an effort to return without violence. The manipulation here should be aided by the warm bath, or inhalation of chloroform, or by inverting the patient by enemata of infusion of lobelia. The use of relaxants is of great utility, lobelia to keep him at the vomiting point, enemata of the same give the taxis a fair trial; if it fails, the stricture must be relieved by operation.

The special forms are the inguinal in its three principal forms:

(1) *Oblique inguinal*, in which the protrusion originates at internal abdominal ring, traverses the entire length of the inguinal canal, and usually passes out at external ring.

(2) *Direct inguinal hernia* passes through a triangular space on the inner side of epigastric artery, pushing before it the conjoined tendon of internal oblique and transversalis muscles, presenting at the external ring, gradually makes its way into the scrotum of the male or labia of the female.

(3) *Congenital hernia* descends inside the tunica vaginalis, which forms the sac, always oblique, follows the same course as the spermatic cord.

Inguinal hernia, if reducible, should be manipulated as follows: place the patient on his back, shoulders and head well elevated, both limbs flexed on the abdomen; have an assistant to knead the intestines well up to the diaphragm, then take the hernial tumor between the fingers of both hands, draw it gently downwards, at the same time using lateral pressure, and in the large proportion of cases the protruded bowel will glide into its normal position; the kneading of the abdomen is an important point to observe, so is the position of the patient; if these means fail, relax thoroughly with lobelia or chloroform, then reduce and apply a properly adapted truss—if a radical cure is desired, scarify the neck of the sac or inject an irritant and apply compression.

If this form of hernia is irreducible it should be supported by a bag.

If it is strangulated and irreducible, nothing is left but an operation, which is simple and easily performed in the following manner: shave the parts, make the skin tense, then an incision three or four inches long should be made through the skin, along the axis of the tumor beginning from its neck, the object being to bring the neck into view, then prick a bit of the tissue beneath with the forceps, cut into it with the knife held horizontally, pass a director into this aperture, push it through the whole length of the incision and divide the whole length of the first incision, continue in this way until the sac is reached, which is readily recognized by its bluish transparency; it is to be opened to the like extent, a little bit of it being first pinched up and cut through so as to admit the director. If it is possible this should be done at a part where there is some serum, or omentum, between it and the bowel. Then pass the forefinger of the left hand into the neck of the sac to seek for the

stricture, which is generally at the internal ring, press the finger through the neck of the sac into the abdomen, then take a hernia knife, pass it up flat on the finger through the stricture, and when through turn it up so as to divide it, and in all cases the division should be made directly upwards, parallel to the linea alba; and then whatever be the form of inguinal hernia that exists the epigastric artery will not be wounded. This is the grand point to observe in operating for the relief of this form of hernia, the position of the epigastric artery, which is shown in the annexed wood cut.



The femoral hernia, if reducible or strangulated, should be reduced, and in performing the taxis for this hernia the patient should be placed in the usual position, head and shoulders well elevated, knees well flexed on the abdomen, but the thigh of the affected side should be rolled inwards, and crossed over towards the other side. Then draw it downwards between the fingers of both hands, pressing gradually backwards and upwards. Before resorting to the operation, relax the patient thoroughly.

If femoral hernia becomes strangulated the symptoms are much more aggravated, if, however, the taxis, with profound relaxation does not succeed, an operation should be resorted to.

HICCOUGH—Is produced by a spasm of the diaphragm. It may depend upon indigestion, nervous disorder, exhaustion, &c., &c.; a symptom of irritation of the pneumogastric or vagus.

Hiccough, dependent upon indigestion, is speedily relieved by an emetic of lobelia and copious draughts of bi-carbonate of soda; followed with hydrocyanic acid, in alteration with nux vomica; or nitro-muriatic acid, with bismuth, or hydrastin.

Hiccough dependent upon nervous irritation, is relieved promptly by valerianate ammonia, scutellarin, bromide of potass. or ammonia, phosphoric acid, aconite, belladonna.

If intermittent give: *R*.—sulphate quinine, gr. ii; gelsemin, gr. ss; sugar of milk, gr. v. Repeat as indication.

If there is exhaustion, phosphoric acid and glycerine, nux vomica, cinchona, hydrastis. Infantile hiccough is quickly relieved with xanthoxilin neutralizing mixture, peppermint.

HOARSENESS.—The inhalation of remedies is too much neglected in certain affections of the throat and lungs. Atomized remedies are particularly valuable, either hot or cold, according to the indications. If we have hoarseness upon inflammation, nothing is so



valuable as hot atomized spray of the common liquor ammonia in such an atomizer as the annexed. It has a most excellent effect upon the dry congested mucous membrane, stimulating it, and causing it to throw out an abundant secretion. Indeed, the immediate effect of the inhalation of this gas is to cause the fauces pharynx, before dry and rusty, to throw out the lubricating fluid, and instantaneous relief is the result.

As to the strength, it should be weaker or stronger

according to the indication to be fulfilled.

Ammonia in any form is beneficial in hoarseness—the atomized spray is well adapted to any congested state of the mucous membrane of the throat. In old standing cases of asthma, where there is great depression, it is peculiarly appropriate. In that condition of the system where debility is the type, the system depressed and stimulants indicated, the greatest advantage and comfort is derived from the inhalation of ammonia.

HOOPING COUGH.—After a latent period of six days, with symptoms nearly analogous to bronchitis, including febrile symptoms, vomiting, and subsequently a peculiar cough, which is spasmodic and occurs in paroxysms at uncertain intervals; for the patient may be apparently well for hours, until seized with a violent paroxysm of coughing, restlessness from coryza, heat of skin, oppression of the chest. As the fever remits, the cough assumes its peculiar shrill sound or hoop. The little sufferer soon learns when the paroxysm is beginning, and is frightened and runs to its mother or nurse, or if at night sits up in bed; a fit of coughing begins and lasts for several minutes. Series of coughs, or powerful expiratory efforts, with scarcely any intervals of inspiration; at the close of which air is taken in by force through the contracted glottis, making a hooping sound, whence the name of the disease. Immediately after the fit the patient regains courage, and soon appears well. The paroxysm often terminates in vomiting. There may be several paroxysms a day, or even every hour. In some cases the peculiar

hoops may be absent; but the peculiar paroxysmal character of the cough is pathognomonic.

Expectoration is often copious, thick mucus, lymph and pus. Exhaustion is common, and often fatal. There is often great variation in the symptoms.

Its duration without appropriate treatment is seldom less than six weeks; with scientific treatment a case will be terminated in two or three weeks; it lingers months in some cases.

The cause of the disease is some zymotic or fungoid poison—specific in its character, evidently affecting principally the cervical portion of the spinal cord and pneumogastric nerve—from the symptoms this seems to be the main seat of its action. The expectoration and febrile symptoms show bronchial inflammation as merely a secondary result. It prevails sometimes as an epidemic. It is extremely contagious; occurs but once in the same person; most frequently met with in children; but this results merely from their susceptibility under exposure.

TREATMENT.—The indications are, warm clothing, flannel next the skin, nutritious diet, mucilaginous drinks, an equable temperature, daily salt water bathing, and then special remedies to remove irritation or congestion of the cord and pneumogastric nerve. Successful treatment here must be by special remedies to meet that one leading indication. If the case is not seen in its incipency, an occasional emetic of an acetic syrup of lobelia and sanguinaria is excellent to relax spasm and unload the bronchial tubes from their mucous exudation, and small doses of the same might be useful to aid expectoration. But just so soon as the spasmodic character of the cough declares itself, special remedies are indicated. Begin at once with either bromide of potass. or ammonium in doses of from two to ten grains, every four hours, and alternate with from ten to fifteen drops of tincture of belladonna in water. With these remedies we can cut short the disease. If they do not quickly succeed, give the tincture of macrotys instead of the belladonna, and if that does not act very energetically, stramonium and hydrocyanic acid should be tried. The bromide may be relied on in any case, and should be held on to as our sheet-anchor, and persevered with above all other remedies.

When whooping-cough is treated with the above remedies, we seldom meet with those complications that are so common under other modes of treatment, because the bromide and belladonna controls bronchitis, removes congestion of the head, consequently we have seldom hemorrhage from the nose, ears or eyes, positively subdues convulsions, absorbs effusion and maintains nature in perfect harmony.

Other remedies esteemed of value, are:

Skunk cabbage, excellent if the child is strumous or lymphatic.

Trifolium often has a wonderful effect in subduing the spasmodic cough.

Capsicum, if there is great depression, an improvement in all cases.

Coffee, excellent if the paroxysms are attended with much suffocation.

Drosera, if there is great congestion.

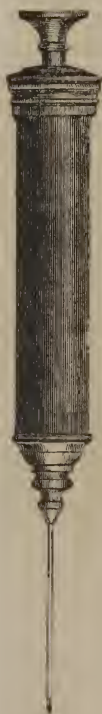
Nitric acid acts well, being a tonic, and supplies the blood with nitrogen, and removes or neutralizes the excess of fibrin.

In all cases friction to the upper portion of the spine, the application of belladonna, and even counter-irritation may be necessary.

Tonics, during the stage of convalescence, as cinchona, iron, phosphorus.

HYPODERMIC INJECTIONS.—This is a favorite mode of medication. It is direct and positive in every case, and all that is requisite for its success is the possession of the annexed instrument, and the remedy used to be in a state of solution.

A good syringe, if properly taken care of, will last a practitioner a lifetime. Especial care should be taken of the tubes. They should be kept oiled with the finest oil, and a piece of silver wire passed through them, and retained in position when not in use. The point of the needle should be sharp and clear.



The mode of injecting the subcutaneous tissue is very simple, and never attended with danger. It must never be performed over a bony projection. I usually insert the needle first, catching the skin between the finger and thumb of one hand and introducing the point of the needle through the cellular tissue beneath, say for at least half an inch. That having been done, charge the barrel of the syringe with the medicated fluid, and screw on the syringe to the needle, and, when this is done, throw in the injection slowly and steadily, so that it may accommodate itself to the parts and be more readily absorbed.

At or near the peripheral extremities of nerves in the subcutaneous tissue absorption is more rapid, and the nervous system more promptly responds to the action of the drug.

One dose a day will act more powerfully and salutary than repeated doses on the stomach.

The dose indicated in the following table should be added to one drachm of distilled water, as that is the usual capacity of the large proportion of syringes of a hypodermic character.

Atropia, gr. $\frac{1}{30}$. Add one drop of acetic acid.

Analín, $\frac{1}{2}$ gr. Soluble in alcohol.

Aconitine, $\frac{1}{30}$ gr. Sparingly soluble in water, freely in alcohol.

Calabar Bean, 1 to 2 grs. in an aqueous extract.

Gelsemin, $\frac{1}{2}$ gr. Soluble in water.

Nicotine, $\frac{1}{4}$ to $\frac{1}{2}$ gr. Soluble in alcohol.

Narceine, 1 gr. Soluble in alcohol.

Quinine, gr. ij. Soluble in water with the addition of a little sulphuric acid.

Strychnine, $\frac{1}{20}$ gr. Soluble in alcohol.

Sulphate morphia, gr. ss. Soluble in water.

If we are desirous of instantaneous effects we would inject on one or both sides of the spinal column; if a less prompt effect is desired, on the loose cellular tissue of the limbs.

HYDROCELE.—An effusion of serum in the tunica vaginalis. It usually results from injuries, inflammation, &c. The swelling usually appears at the bottom of the scrotum; it gradually increases in size, and forms a smooth, pear-shaped, translucent swelling.

Hydrocele may be distinguished from *hernia* by its beginning at the bottom of the scrotum, by its semi-transparency, fluctuation, by not dilating on coughing. The testicle in hydrocele is usually high up. The color of the effusion is a pale yellow serum. It may occupy the entire scrotum freely or may be encysted.

Many cases of hydrocele may be cured by the following prescription: *R.*—Aqua dist., Oi; iodide potass., \mathfrak{z} ij; tincture iodine, \mathfrak{z} ijj; muriate ammonia, \mathfrak{z} i.—*Mix.* Saturate a piece of linen sufficiently large to cover the entire scrotum, then apply. Cover over with oiled silk, and apply suspensory bandage: change thrice daily. Stimulate skin, bowels and kidneys with a combination of podophyllum, bitartrate potass., nitrate potass. and digitalis.

Painting with iodine, phytolacca, &c., not attended with good results.



If these palliative measures fail, then a radical cure should be effected, as follows: take the hydrocele trocar and insert it, as per the annexed wood cut, and draw off the fluid; if encysted, each

cyst should be penetrated with the trocar, so as effectually to drain the fluid. Afterwards throw in a drachm or two of the tincture of iodine, in order to excite adhesive inflammation in the walls of the sac; destroy its secreting function, and the cure is generally permanent.

The following is another method: having drained off the effusion push the trocar and canula through the scrotum two inches from its top, withdraw the trocar and insert a strand of silk, six in number, through the canula, then withdraw the instrument, allowing the silk to remain; remove one daily until all are taken away. The effect is precisely the same as the iodine produces; the presence of the silk exciting adhesive inflammation, which effectually destroys the secreting quality of the sac.

HYDROCEPHALUS.—It is a well attested fact that scrofulous disease is rapidly on the increase, and that increase is due to improper marriage, depraved passions, noxious food, &c.

Children stamped with this impaired condition of the vital forces are feeble in vegetative power—the blood which is elaborated under that depressed diathesis is feeble, highly albuminous—its corpuscles do not attain their ordinary size or color, hence, on the least irritation in any particular part of the body we have congestion and effusion of this albuminous fluid.

In children under five years of age we have a variety of conditions that give rise to irritation, as dentition, worms, diarrhœa, &c., &c.

Reflex irritation it is true, but nevertheless powerful in exciting irritation, congestion, and effusion of those impressible membranes that cover the brain.

If we have such a condition in a scrofulous child, we have tubercular meningitis or acute hydrocephalus.

The symptoms are very various, but characteristic. First of all the strumous diathesis, malnutrition, great peevishness, extreme restlessness, short, dry cough, intolerance of light and sound, headache, giddiness; occasional febrile condition, with exacerbations and remissions; appetite very variable, secretions arrested, furred tongue, offensive breath. When asleep he moans or groans, eyes partially open, awakes in alarm or with a scream, rolls head in the pillow.

These symptoms may last a week when the little sufferer becomes drowsy, inclines to be quiet, alternate flushing and paleness of the countenance; face pinched, expressive of suffering, brows knit, sleeplessness, weariness, headache, pulse irregular, 120 to 80. Often a remarkable remission of symptoms, but the improvement is of short duration. Stupor and heaviness, squinting convulsions, paralysis, urine and feces passed involuntarily.

The disease in this way may pass on for ten or fourteen days, the patient passing into the most profound coma. Pulse becomes

feeble, extremities cold, the case terminating in paralysis or convulsions.

The ophthalmoscope is a powerful aid to diagnosis in tubercular meningitis before convulsions set in. It exhibits peripheral congestion of papilla, distortion of retinal veins, with varicosity of the same.

TREATMENT.—The emunctories should be freely unlocked; jalapin and leptandrin; nitrate potass.; alkaline bathing every few hours.

Iodide potass., tincture aconite, and belladonna should be freely given, in alternation with ten grains of bromide potass., to control symptoms.

An evaporating lotion should be applied to the head; the following is excellent:

R \bar{y} .—Aqua, O;
Spts. camphor, $\mathfrak{z}\text{ii}$;
Chloride sodium, $\mathfrak{z}\text{ss}$;
Tincture belladonna, $\mathfrak{z}\text{iss}$.—*Mix.*

If worms are suspected, give santonine; if irritation of the gums, free scarifications; if there is depression of the vital powers, stimulants—whenever symptoms are subdued, the only remedies are the different preparations of phosphorus, glycerine, salt water baths, change of air; blood diet, as albumen, juice of meat, eggs.

The most common termination of tubercular meningitis is in effusion.

Hydrocephalus.—This is met with in some cases as a congenital affection, but generally associated with cerebral disease.

When effusion takes place the head attains a great size; the unossified sutures yield readily to the pressure of the fluid, bones are thin and transparent, meninges thickened; sometimes the effusion is uniform throughout the scalp, sometimes more in one side than another; the quantity varies from a few ounces to some pints.

It is often a sequel of serofulous inflammation, sometimes congenital, emaciation, ravenous appetite, small face, large globular cranium, head drops helplessly on one side, imbecile, irritable, and peevish; extreme sensitiveness to light or noise; often epileptic fits, muscular weakness, rolling eyeballs, often strabismus or amaurosis, headache, nausea, constipation, dark-colored offensive stools.

If not relieved, we have stupor, pallor, slow pulse, dilatation or contraction of the pupils, picking of the nose and lips.

If remedies act the symptoms subside, appetite returns, muscular power returns, emaciation diminishes.

If the case is about to terminate unfavorably, excessive prostration, rapidity of pulse, paralysis, coma, convulsions.

TREATMENT.—As the primary cause of tubercular meningitis and hydrocephalus is the serofulous diathesis, the treatment should be directed to changing or modify that abnormal condition. An

enfeebled condition of the nervous system is the starting point; this deteriorated state of the fountain renders the elaboration of the blood imperfect, hence the diathesis, so that infants born with this impress stamped upon them should be strengthened as much as possible, nourishing food, juice of meat, plenty of milk, bathing, salt water baths, friction to skin, pure air, sea side, phosphorus and glycerine.

If the effusion has occurred, it must be removed by acting on the bowels, kidneys and skin. We can give with decided advantage the following:

R.—Podophyllum, grs. ii; nitrate potass., grs. ii; bitartrate potass. grs. xxx.—*Mix.* Give twice daily. *R.*—Comp. syr. stillingia, ℥iii; iodide potass., ℥ii.—*Mix.* A teaspoonful thrice daily.

Other remedies, iodine, colchicum, digitalis, potassa, gold, irisin, chimaphilin, ampelopsin, alnuin, &c., and during convalescence, phosphorus, iron, lime, permanganate potass.

HYDROPHOBIA.—A disease usually brought on by inoculation with the saliva of a rabid animal, and generally appears in from twenty to sixty days after the bite, although well authenticated cases are recorded where the virus has remained latent in the system for years, when, from some depressing agency on the system, the disease made its appearance.

The bitten part, when the disease is about to break out, assumes a livid and swollen appearance, and has a burning sensation, or shooting pains dart from the seat of injury. A little later, rigors, lassitude, great depression, anxiety, watchfulness, irritability, giddiness; eyes red, brilliant, sensitive to the light, uneasy sensation in the stomach, constriction of the chest, difficulty of deglutition, oppressed respiration. As the malady progresses, spasm of the pharynx and larynx, a viscid saliva is secreted, which compels the patient to be continually hawking and spitting; intense dryness of the mouth and throat, with unquenchable thirst, which he cannot allay on account of the spasmodic contractions that are excited whenever drinks are presented to him. The skin is hot and dry, the respiration becomes more and more difficult, the voice changed, pulse unchanged, the body affected with tremors or spasmodic twitchings, indescribable pains extend up the spine to the head, and latterly the countenance becomes pale, haggard, eyes sunken, palpitation of the heart, muttering delirium, inclination to bite, the greatest anxiety and uneasiness, sinking of the pulse, loss of voice, clammy sweat, convulsions and death.

The poison, when it comes in contact with the human tissues, acts as a poison to the nervous system, and the irritation speedily affects the cord and medulla oblongata, when the heart, lungs, diaphragm, brain, suffer, and a continuance of the morbid action on the living fabric quickly destroys its vitality.

Hydrophobia never can be mistaken for tetanus; the character

of the intellect, of the face, peculiar pain at the pit of the stomach, the spasm, &c., are points well defined.

TREATMENT.—The only perfect safety to one bitten by a rabid animal is immediate and total excision of the part. Forcible suction is also good; ligation above and below the wound aids in preventing absorption. If excision cannot be performed, complete cauterization is the next best thing, with the caustic potassæ, followed with vinegar, then a poultice of lobelia and stramonium. This mode of treatment undoubtedly lessens the danger of this horrible disease. As an additional precaution, give a strong decoction of skull-cap, alternated with carbonate ammonia.

Few remedies have so far been discovered for the cure of hydrophobia. The Eclectic profession depend chiefly upon skull-cap, ammonia, calabar bean, belladonna, lobelia, musk, valerian, &c.

In treatment we must recognize the action of a terrible destructive poison on the nervous system, so great that spasm and delirium are incessant. Reflex excitability of the medulla oblongata intense. Remedies must be given to suspend the action of the poison.

Lobelia is a partial antidote, and should be the first remedy tried; give it on the first appearance of the symptoms; repeat dose after dose till the system is completely prostrated, and the patient unable to move a limb. This is a powerful but safe remedy, and with the subsequent remedies is specific to this, the most dreadful of all animal poisons.

Having accomplished this much, give half a teacupful of a very strong infusion of skull-cap every hour, and from twenty to thirty grains of carbonate ammonia as often.

Insulate the bed, and apply a strong current of electricity to the patient, as follows: positive pole in a large sponge electrode to the cervical portion of the spine, negative to the region of stomach; a continuous current for several days; this is excellent for suspending reflex excitability. If no improvement, inhalations of chloroform, or subcutaneous injections of atropia, should be resorted to, and that invaluable drug, the calabar bean, should be promptly tried.

Calabar bean, in doses of from ten to thirty drops, every half hour, until it affects the nervous system so positively that the pupil contracts to a pin-point. This is an invaluable remedy, and we should never overlook it.

Belladonna is directly the opposite in therapeutic power from the calabar bean; it is excellent to suspend the impressibility of the medulla oblongata; besides, its special action on the laryngeal and pharyngeal nerves are points not to be overlooked.

If with these remedies the patient can be carried along a few days, then Indian hemp, aconite, quinine, iron, phosphorus, would be appropriate remedies.

The great object in treatment, when the disease is once established, is to suspend the action of the nervous system by some of the above remedies, trusting that the effects of the poison may cease before the vital forces are exhausted.

HYPOCHONDRIASIS.—Functional derangement of the stomach, liver, bowels or kidneys, operate powerfully upon all parts of the nervous system, and produce disorder of the intellect and impaired activity of mind. There is a general morbid condition set, as languor, lassitude, want of resolution, general miserable condition, great dread of disease, impotence, insanity or death.

Our most successful treatment consists in regulating the secretions by exercise, diet, bathing. Tea, tobacco, &c., should be strictly forbidden; exercise in the open air, nourishing food, physical training highly important.

The various preparations of phosphorus are the remedies from which we derive most satisfactory results. Phosphorus is a pure, decided tonic to the nervous system, and after the use of means to overcome the torpor of the faulty condition, is by far the best remedy. Phosphoric acid, phosphate of quinine, iron, or the hypophosphites of lime, soda and iron. The mineral acids are of great utility in this morbid condition; valerian, nux vomica, cinchona, are also appropriate.

HYSTERIA.—This disease usually occurs in females of a nervous or nervo-sanguine temperament, with cheerful, lively, ardent dispositions, vivid imaginations, and highly impressible organizations. It occurs in paroxysms, with intervals of greater or lesser duration. The uterine and sexual organs have been regarded as the seat of hysteria, because it is frequently associated with derangements of the functions of those organs. Its occurrence is after the period of puberty in patients of the peculiar temperament indicated, and is usually accompanied by deranged menstruation, dysuria, sexual excitement, and pains in the pelvic region. The malady is purely of a nervous character, consisting of an erethism of the whole nervous system, and capable of being brought into active operation by anything which operates upon the economy, like deranged menstruation, uterine congestion, depressing passions, disappointed love, undue excitement of the sexual organs.

An hysterical fit is a paroxysm whose nature varies from mere uncontrollable laughter or crying to a severe epileptiform convulsion. It essentially differs from epilepsy in there not being a complete loss of consciousness, and also in its cause and cure. It is often preceded by a sensation like that of a ball rising towards the throat. It is a common trait of hysteria to simulate every form of functional disorder, as hysterical amaurosis, paraplegia, retention of urine, cough, aphonia, ovarian disorder, spurious pregnancy, consumption, disease of joints or spine, stone in bladder, epilepsy, appetite for food increased or diminished.

In the nervo-sanguine temperament, with an ordinary constitution, the paroxysms come on by slight twitchings of the muscles of the eyes and mouth, wild expression, convulsive laughing, crying or sobbing, constant attempts to injure herself.

In the bilious the paroxysms are usually preceded by cough, pains in the head, chest, back or pelvis.

Besides the causes enumerated we might enumerate heated apartments, works of fiction, tight lacing, lascivious thoughts, luxurious living, exciting the sexual organs to irritation, congestion, which morbid condition is propagated to the spinal cord, whence the symptoms.

TREATMENT.—During a paroxysm protect the patient from injury, loosen her clothes, admit an abundance of fresh air. If the patient can swallow give teaspoonful doses of the ammoniated tincture valerian, and apply cold to the head.

For the cure of hysteria, it should be treated according to its cause.

If from constipation, torpid liver, &c., attended with putrid, or sour, or bitter eructations, pain over the region of the stomach, nux vomica, leptandrin, alternated with nitro-muriatic acid.

If dependent on masturbation, or excitement about the sexual apparatus, bromide potass., lupulin, camphor.

If dependent on mental excitement, belladonna, hyoscyamus, stramonium, phosphorus and quinine.

If the cause is congestion of the uterus, hip baths twice daily, injections of cold water and elm, belladonna plaster to sacrum; internally, bromide potass., pulsatilla, senecin, caulophyllin, mother's cordial, viburnin.

If anæmia, glycerine, phosphorus, iron, hydrastin, ammoniated tincture valerian.

If the cause cannot be detected, a general alterative course to subdue the impress of the reflected irritation, as bromide.

Under any condition, nutritious diet, thorough hygiene, daily bathing, shower or salt water bath, moderate exercise in the open air, agreeable and diversified mental occupation—the occasional use of galvanism, the greatest possible attention to the uterine functions.

ICHTHYOSIS.—Fish-skin disease is a rare, non-contagious, squamous skin disease. Characterized by a development on one or more parts of the body, of hard, thick, dry scales, forming continuously over a part or whole of the body; without much redness, soreness or even itching. Congenital and difficult to cure. The following are the only remedies with which we have had success:—*Internally*—**R.**—Pulv. tag alder, dock root, blue flag, sassafras, stillingia, āā ʒi. Infuse for two hours in a pint of water; a wine-glassful every three hours. *Locally*—**R.**—Water, Oss; bicarbonate soda, ʒi.—*Mix.* Wet a piece of lint and apply; cover with oiled silk. Persevere for months with similar treatment.

IMPETIGO.—A severe and sometimes contagious affection, characterized by an eruption of small, hemispherical or flattened pustules, generally grouped in clusters, and forming thick incrustations. From beneath these incrustations a discharge flows: crusts become thicker, larger, fall off, leaving raw surfaces.

Pustular or humid tetter assumes a great variety of forms; the most common are:—*Impetigo figurata* occurs on the face and is always attended with constitutional disturbance. The pustules are round or oval; they burst and form scabs; heat and itching become intolerable. When this eruption covers the head and face like a mask, it is called *crusta lactea*. If the pustules are scattered irregularly over the entire body or limbs, it is termed *impetigo sparsa*.

It is generally caused by mal-assimilation or morbid condition of the system.

The constitutional treatment should be such as will rectify the morbid condition. The secretions well regulated: daily alkaline baths; most nutritious food; abundance of fresh air: iron, phosphorus, glycerine, cinchona, nitro-muriatic acid, iodine.

Locally, this affection is best treated by the weak alkaline wash (water, Oj ; bicarbonate soda, ʒi) kept constantly wet and applied. Alkalies applied from time to time in the form of a wash or soap, are only irritating, but when constantly employed they are soothing. Various other remedies may be resorted to locally, as lotion of hydrocyanic acid, sulphite soda, iodine, &c.

IMPOTENCE AND STERILITY.—The subject of impotence and sterility is one that is of momentous importance to the physician.

Impotence is the term given to all those morbid conditions, in man or woman, which are opposed to the physiological union of the two sexes, namely, coition, or an inability to consummate marriage; anything that prevents the seminal fluid of the male from coming in contact with that of the female ovule. On the other hand, sterility is applied to all those morbid states, which, in either sex, prevent the reproduction of the species—a condition in which no spermatozoa or ovules are secreted—it is applied more frequently to females.

Impotence in Man.—The act of copulation in man may be rendered defective from a great variety of causes: there may be a perfect indisposition for connection by absence or want of development, or malformation or mutilation of the penis; by mental influences, as hard study, violent emotion, over-excited desire, as in masturbation, want of confidence, anxiety, grief, disgust, perversion of sexual feeling. Excesses almost invariably produce impotency, want of sympathy, want of feeling; diseased conditions, fevers, injuries of the back of the head and spine, disease of the brain and cord, excessive labor, use of tobacco, opium eating, use of spirituous drinks, anything that impairs digestion and weakens the nervous or muscular systems; abuse of sexual functions, imperfect erection,

obesity, abnormal condition of erectile tissue; impediments to the escape of semen, as stricture, abnormal openings, hernia.

TREATMENT.—The treatment of impotency, when not dependent upon organic change or disease, is very plain. If it is curable at all, the treatment is comprised in a very few words. We want rest, improvement of the general health, so that the nervous centres shall have time, opportunity and encouragement to regain lost power—to rally, if it is possible—to invigorate the muscular powers, so that both voluntary and involuntary muscles may regain their tone, are essential points to begin with. Stimulation should be avoided, for it merely excites, never strengthens. In nearly all the curable forms of impotency, the nervous system has been over-excited beyond its healthy limits, beyond what it can bear, so that one object is to restore nerve power, not to excite and further exhaust it. In all cases the diet should be wholesome and highly nutritious; fresh air, daily moderate exercise, salt water bathing. Everything should be done to improve the health, and in this way, with a kind of expectant treatment, the sexual organs will regain their tone.

The practice has been the employment of stimulants, which is sometimes justifiable and advantageous; but, in the large proportion of cases, unscientific and dangerous. The best rule is to remove the cause and improve the general health first, then the local condition.

No remedy is so valuable as phosphorus in the treatment of impotency. We theoretically infer, that in the large proportion of cases of impotency, there is a great expenditure of phosphorus in its various combinations, consequently we have a deficiency to supply. Give the system freely the elements it needs, and in such a form as may be easily absorbed, as: *R.*—*Acidum phosphoricum*, dilut. syrup ginger and orange peel, *aa* ʒi.—*Mix.* A teaspoonful every three hours. Phosphoric acid is very valuable where we have reason to suppose that semen is not secreted in sufficient abundance, or where too rapid ejaculation attends the sexual act, or where nervous depression is extreme.

Nux vomica is a valuable tonic in cases attended with nervous depression resulting from excesses. Most beneficial where the impotence depends upon weak or imperfect erection. Its most eligible form is combined with quinine and hydrastin.

Iron is a valuable remedy, probably the tincture of the ferri chloride is the best, giving twenty drops every three hours.

Electricity may be valuable where a local stimulant is demanded; it is capable of determining blood and nervous power to the generative system.

The use of cantharides we most emphatically condemn, as being an agent destructive, never calculated to restore lost vitality.

The main point in curable impotency is a building up course of

treatment, and tact and management on the part of the physician to come in with proper remedies.

Impotence in Woman—Is often due to some form of malformation, as adhesion of the labia, abnormal hymen, impervious condition of the vagina, double vagina, extreme sensitiveness of the vagina, uterine or vaginal tumors, obliteration or constriction of the os uteri, malposition, inflammatory conditions of the uterus, occlusion of the fallopian tubes, diseases of the ovaries, fistula, recto or vesico-vaginal, rupture of perineum, malignant disease.

INFLAMMATION.—A local fever, being a salutary effort of nature to repair or throw off, being accompanied with pain, heat, redness, swelling, and having a tendency to terminate in either of the following results:

In resolution, the return of the part to its normal condition.

In effusion of lymph; in the effusion of serum; in hemorrhage; in the formation of a fluid called pus, and ulceration; or in the death of the part.

The actual causes of inflammation are such conditions as modify the molecular state of the tissues, and arrest, for the time, the usual interchange of material between the tissue and the blood. Stimulation, carried to morbid excess, interrupts, by the molecular disturbance it induces; the normal vitality of the part is impaired, the circulation arrested, stagnation ensues.

If hyperæmia takes place, we have effusion through the distended coats of the blood-vessels.

Inflammation is a local lesion of nutrition, with concentric vascular excitement, resulting either in exudation, or cell distension and proliferation.

The degree or intensity of the inflammation exercises an important influence on its results on the lymph effused.

Progressive physicians, with the abundant resources of the pharmacopœia, can as positively control this condition as a mechanic any piece of mechanism. Drop doses of veratrum, every half hour, will effectually control an excitable heart—a heart contracting 160° per minute to 70 or less, and can keep it at that point; for that is the indication for plastic lymph which unites breaches of continuity. Aconite, gelsemin and lobelia exercise a still more powerful effect.

INFLUENZA.—This disease appears as an aggravated form of catarrh or coryza, but essentially different in its nature. It in all cases arises from a specific cause, and spreads rapidly as an epidemic, so very rapidly that a whole section of country is often attacked simultaneously. In addition to the symptoms of simple catarrh, we have in influenza an immediate aggravation of all the febrile symptoms; hoarseness; severe cough, either dry and racking or hollow and loose; wheezing or difficult respiration; impaired

appetite; great soreness and oppression in the throat and chest on coughing; incapacity for mental exertion; bowels constipated or relaxed. The inflammation extends rapidly to the whole bronchial mucous membrane, giving rise to a sense of rawness in the chest; stitching pains; thick, tenacious and semi-purulent expectoration.

Its characteristic symptoms are, depression, great watery discharge from eyes and nose, sneezing, frontal headache, nervous and muscular prostration and profuse sweating.

TREATMENT.—At the start an emetic of lobelia and eupatorin, followed with a vapor bath, then put the patient to bed in a well ventilated room; put the patient upon aconite and belladonna every hour, and alternate with eupatorium perfoliatum. This latter remedy is an excellent one in influenza. An infusion, prepared by taking an ounce of the dried leaves and adding them to a pint of boiling water; a wineglassful of this infusion every half hour. Keep steadily on until free diaphoresis takes place, and with this an amelioration of the symptoms. Keep the patient on this remedy until all the symptoms perfectly abate; increase the period between each dose, so as merely to maintain its impression.

Lobelia and sanguinaria meet the catarrhal symptoms precisely. Atomized spray of plain water, or medicated with eonium, is excellent; hot fomentations to chest.

If prostration is a prominent symptom, support, quinine, xanthoxilin, beef essence, brandy.

Convalescence should be established upon phosphoric acid, quinine, iron, hydrastin, nourishing diet, country air.

INTERMITTENT FEVER.—All diseases of the nervous system are intermittent in their character, malarial, or the fungoid product of decaying vegetable matter has the peculiar property, after being inhaled through the bronchial mucous membrane, of both affecting the blood and nervous system. Its toxic properties are often impressed upon the system through the mucous membrane of the stomach from drinking water from a malarial base. That the nervous system chiefly and primarily is affected is demonstrated by all the symptoms; pain in the head, pain in the back, calves of the legs, languor, lassitude, debility, arrested secretions, coated tongue, diminished action of the skin, condition of the pulse; that the blood is affected, but to a less degree, we have the congested condition of the spleen, eaked, indurated, and a peculiar black clotty condition of the blood, which renders that fluid extremely prone to stagnate or adhere to the walls of the blood-vessels.

The origin of the disease is the product of decomposition, and only developed where the temperature exists above 70° , and where the vital forces of the patient are below a normal standard, so as to render him susceptible to the reception of the poison.

In proportion to the amount of malaria inhaled, and the suscep-

tibility of the patient to receive the poison, will be the severity of the attack; that is, if the vital forces are strong, and the amount of malaria inhaled not excessive, we will have ordinary intermittent fever of a *quotidian* type; if the vital forces are impaired, and the quantity of malaria inhaled greater, we have a *tertian* type; if the vital forces are still more depressed, and the quantity and intensity of the malaria still greater, we have a *quartan* type of fever. In the first grade, the interval is twenty-four hours; in the second, forty-eight; in the third, seventy-two. The time between the commencement of one paroxysm and the beginning of the next is termed the interval; that between the termination of one paroxysm and commencement of the next, the intermission. There is no fixed period for the occurrence of the paroxysms, but the quotidians are most common in the morning; the tertians at noon; the quartans in the evening. The most common seasons are spring and fall.

A paroxysm of intermittent fever is composed of three stages: *cold, hot, sweating*. The duration of the cold stage varies from half an hour to three or four hours, the hot from three to twelve hours, and the sweating a few hours, usually terminating in relief. Disturbance of the whole system, more especially spleen, liver and stomach, and if the disease is not cured, a general breaking down of the nerve centres and deterioration of the blood.

There are numerous modes of curing malarial fever. If called in during the cold stage, an infusion of boneset and asclepias, external warmth by blankets, bottles of hot water, hot baths; if in the hot stage, cooling drinks, light covering, sponging frequently with alkaline wash; if in the sweating stage, rest, diluents. First of all we might, in all cases, begin with an emetic of comp. lobelia, drinking freely of water impregnated with bicarbonate of soda, or an emetic of salt water; follow with a vapor bath. This should be done at least eight or ten hours before the chill. Then six hours before the chill give the following: *R*.—Sulph. quinine, prussiate ferri, āā grs. xii; podophyllin, grs. ii; gelsemin, grs. iii; capsicum, grs. x.—*Mix*. Make six powders. Give one every hour and a half, so that the patient gets three prior to the expected period; drink an infusion of equal parts boneset and asclepias. If the ague fit is not aborted the first day, it will certainly be perfectly broke upon the second. I never need to repeat the prescription; it is positive in every case.

For a month it is well to put the patient upon comp. tinct. tamarac or cinchona, and if there is hypertrophy or induration of the spleen, tincture iodine, bromide potass., general alterative course. This is the treatment I have used for upwards of twenty years without a single failure.

I insist upon the most absolute rest for a few days during the progress of treatment. Rest is a powerful auxiliary to the treatment of all diseases, but more especially fever.

INTERCOSTAL NEURALGIA.—This is most frequently located in sixth, seventh, eighth or ninth nerves of left side. It generally follows the course of anterior primary branches of dorsal nerves, extending directly from anterior part of thoracic wall to vertebral. One or two or more painful spots usually detected on pressure. There may be cutaneous hyperæsthesia of whole mammary or infra-mammary region. There may be debility, leucorrhœa, irregular menstruation. It is often present in hysteria, chlorosis, Bright's disease, phthisis.

The best mode of treatment is to improve the general health with tonics, baths, stimulants, nourishing food, fresh air, alteratives. The special treatment will consist in administering special remedies to control the inflammatory condition of the nerve. Unquestionably our best remedy is belladonna, internally and locally. I have found the following very good: *R.*—Sulph. quinine, grs. xxx; gelsemin, grs. vi; ergotine, grs. xx; extract belladonna, grs. vi.—*Mix.* Make 20 pills; one every three hours. Subcutaneous injections of atropia, very efficacious. Take, glycerine one ounce, incorporate in it two grains of atropia, and use the acupuncturator all over the affected part, with the atropia and glycerine freely, and repeat if necessary. In this same form of neuralgia I have used the calabar bean and gelsemin with great satisfaction.

INTESTINAL DISEASE.—Obscure morbid conditions of the alimentary canal are apt to mislead even the most experienced.

Calculous concretions are rare in the human intestines, but when found, usually consist of crystallized earthy salts, as the phosphates of lime and magnesia. If such a condition is suspected, profound relaxation should be induced and maintained by lobelia and olive oil, given repeatedly, until the foreign body is expelled.

Obstruction of the intestines may result from a variety of causes, as hernia, cancerous stricture, cicatrix after ulceration in typhoid fever, adhesions, foreign bodies, concretions.

Pathognomonic symptoms are, constipation and persistent vomiting—vomiting, first of mucus and contents of stomach, then fecal matter, tympanitis, prostration, peritonitis.

The best treatment is to place the patient at once under the influence of gelsemin and lobelia, belladonna poultice over abdomen, enemata, copious and frequent injections of warm water, with lobelia and belladonna.

Intussusception is that condition in which one part of the bowel is drawn into another, just as the finger of a glove is pulled within itself, and owing to congestion, effusion, inflammation, the canal becomes more or less obstructed.

The symptoms are very obscure, but the sudden violent pain, nausea, obstinate constipation, discharges of blood and mucus per rectum, are our chief landmarks.

INSANITY.—Derangement of the intellect is one of the greatest calamities that can befall the human mind. In its highest condition of development, the nervous mechanism has a three-fold operation, namely, objective ideas, which arise in external facts; subjective ideas, which exist in registered impressions; impressional ideas, as abstract truths.

An impression made upon either of the senses is conveyed by a nerve connected with it to one of the ganglia at the base of the brain, and upon the vesicular contents of this the change is made. These impressions on the ganglia are transferred to the mind proper, and form an integral part of it, constituting the faculty called memory, and it is the disorders of this process that pass by the name of insanity.

It is impossible to define insanity; it is a general term used to express the mental condition opposed to sanity.

Its early indications are, a total or partial perversion of the intellect, the chain of ideas is broken, producing incongruous combinations, which are at variance with reason or common sense. Insanity appears in various aspects, according to the cause producing it, and the part of the brain affected. Cerebral affections are slow in developing themselves; the symptoms that should excite alarm are, headache, giddiness, mental confusion, irritability, loss of temper, carelessness about usual occupations, weariness of existence, intense desire for sleep, lethargy; and the first intellectual faculty that gives way is the memory, strangeness of conduct, defective articulation, impairment of the senses, abnormal condition of the stomach, obscure thoughts, frightful dreams. Insanity is sometimes complicated with paralysis or epilepsy.

When complicated with epilepsy, the conduct of the insane is often outrageous and ferocious; when with paralysis, extremely helpless. When paralysis appears with mental disease, it increases as the power of the mind diminishes. No form of insanity should be recognized but that form of mental unsoundness the product of disease.

There are different forms of insanity, the one frequently merging into the other.

Mania.—This consists of entire perversion and derangement of the intellectual faculties. The patient seizes upon some topic, and passes from one to another, ideas abundant but erroneous, absurd wandering, manners violent, excited, mischievous. The intellect is deranged on all subjects; the moral qualities are perverted; he is ferocious, unnatural, hatred, rage, quarrelsomeness, desire to do mischief. At the same time the patient is conscious of his identity, but the mind operates through a diseased organ. Shouting, laughing, reciting for hours together, weakness, exhaustion, emaciation, want of sleep, aversion to food, incontinence of urine. Sleep is an indication of recovery, desire of food, with a diminution of agitation and delirium.

Monomania—Is characterized by derangement upon some particular subject, which constantly occupies the thoughts to the entire exclusion of everything else. Mind may be vigorous, ideas few but erroneous, not under control. The manners of the patient are in accordance with predominant ideas. A false principle is seized upon, which is pursued logically, and from which legitimate consequences are deduced. In some cases the reasoning power is unimpaired, but not wholly lost.

There are numerous varieties of monomania.

Dementia.—That condition in which weakness of intellect, induced by accident or age, is the prominent feature. Mind feeble; ideas confused, vague, wandering; memory much impaired. Patients are ignorant of time, place, quantity, quality, and quickly forget; undecided, childish, silly. Patients with this form have neither affections nor aversions. Great restlessness, excitement. Scarcely any control over the bladder or rectum; latterly, complete paralysis.

Idiocy.—Due to a congenital imperfection of brain, so that the mind is not developed, ideas are few and simple, manners foolish, transient bursts of passion; vacancy of countenance, articulation and gait imperfect, often blind, deaf, mute.

CAUSES.—Insanity is always associated with disease of the body. The development of mind and body must be in exact proportion, harmony being nature's immutable law. In some cases it is hereditary, depending upon some peculiar form of organization, but most cases occur when the brain has reached its highest activity, and liable to be over excited by hard study, dyspepsia.

The most common cause of insanity is the various inflammatory conditions of the brain. The different effects of inflammations are a very frequent cause of insanity. Injuries upon the head, poisons, want of sleep, over-exertion, mentally and physically, hereditary predisposition.

TREATMENT.—A most important consideration is rest of mind and body, change of scene and occupation, proper amount of sleep. The greatest possible attention should be paid to the functions of the skin, kidneys, alimentary canal, removal of any disease, as an abnormal condition of the skin or sexual organs. Our best prophylactic agents are:

Phosphorus in some form or other is indicated in every case.

Stramonium, henbane, belladonna, Indian hemp, iron, nourishing food, milk, stimulants, change of air and scene.

It should ever be borne in mind, that when the brain is diseased, that the secretions and excretions are arrested, consequently large doses of medicines must be given in order to obtain results. Another point to bear in mind is, that no depleting remedies can be tolerated. All other diseases should be carefully removed, as skin affections, rheumatism, uterine disturbances, syphilitic taint, gastric and intestinal obstructions. A nutritious diet is highly indispensable; warm clothing, outdoor occupations and amusements, cheerful occupation.

Sleep should be procured by sedatives. Healthy evacuations to be obtained from the bowels by vegetable alteratives. The general health must be improved by tonics. Baths are always attended with excellent results.

IRITIS.—*Inflammation of the Iris.*—A delicate fibrous tissue, composed of bundles of involuntary muscular fibres and pigment cells, suspended between the cornea and crystalline lens, and dividing the cavity containing the aqueous humor into an anterior and posterior chamber. These cavities are lined by a serous membrane, resembling the pleura and peritoneum, consequently inflammation of this membrane is of the adhesive kind. The serious nature of this disease will at once be perceived when we remember that the effusion of lymph may limit or entirely stop the movements of the iris, and may alter the form, or even close up the aperture of the pupil.

The causes of this disease are various: may arise from sudden exposure of the eyes to an intense and glaring light; from injury in surgical operation performed on the eye; very common among engravers, watchmakers, needle-women, from over-exertion; may sometimes be traced to a wound or mechanical injury of the eye, abuse of mercury or some constitutional taint, as gout, syphilis, rheumatism, scrofula, &c. Inflammation of this texture is more productive of constitutional or febrile symptoms than affections of the external tunics.

SYMPTOMS.—Redness of the eye arising from vascularity of the sclerotic; change in the color of the iris. When lymph is effused in the texture of the iris, a grey or blue eye is rendered yellowish or greenish, while in a dark eye a reddish tint is produced. Patient complains of dimness of vision, intolerance of light, pain in and around the eye. In subjects of gouty or rheumatic diathesis, we have deep-seated, lancinating, tearing pains in the ball, and extending to the top of the head; spasmodic movements of the globe: pains aggravated on moving the eyes; luminous specks or dark objects float before the retina; effusion of blood and matter into the anterior chamber of the eye; indications of gastric and general constitutional disturbance. In scrofulous patients, great general irritability is present; rapid and irritable pulse; hot skin; loss of appetite; aching, throbbing or pressing pains in the eye; photophobia; mental and physical prostration.

TREATMENT.—The treatment of iritis varies to some extent, according to the cause which induces it. The indications are, to subdue inflammation, arrest effusion and create absorption of lymph already effused, preserve the pupil and allay pain. This disease requires active treatment, as it is very painful and runs its course very rapidly.

For the purpose of subduing the inflammation give an active

emetic; follow with a cathartic composed of podophyllin, jalapin and bitartrate of potassa. Repeat this treatment until the symptoms abate. In combination with these, give aconite, veratrin and asclepin sufficient to control the circulation. Counter-irritation to the nape of the neck by means of the irritating plaster or acupuncturator, and equal parts of oil capsicum and croton for the purpose of causing absorption. Great benefit will be derived from the use of c. syr. stillingia with iodide potassium; quinine and hydrastin in alternation with muriate of gold or platinum.

The pupil should be kept well dilated by the application of extract belladonna to the skin around the eye; or, better, by the instillation into the eye of a weak solution of sulphate of atropin for the purpose of preventing adhesion of the iris. To allay pain give hyoscyamus, subcutaneous injections of morphia, fluid extract of opium applied to the eye by means of a cloth or sponge.

If the patient is of a gouty diathesis, stimulate the secretions and give colchicum and quinine, or colchicum and turpentine in combination with the former treatment. In scrofulous cases, alteratives and tonics will be beneficial after a change is affected by the use of emetics and cathartics. Pyrophosphate of iron, iodide potass., cinchona, &c., in combination with alkaline and nitro-muriatic acid baths.

JAUNDICE.—This is a mere symptom of various morbid conditions, more especially of the liver and kidneys.

The large proportion of cases are due to two causes: (1) Suppression of biliary functions, in which the coloring matter of the bile and cholesterine accumulate in the blood. (2) The reabsorption of bile from some obstruction.

The yellowness of the skin and conjunctiva, the porter-color of the urine, the clay-colored fæces, itching of the skin, the exhaustion, drowsiness, giddiness, peevishness, bitter taste in the mouth, slow pulse, derangement of the stomach, objects appear yellow, are all characteristic of jaundice.

If there is obstruction from a gall-stone, the suffering is often severe, excruciating pain radiating from gall duct to duodenum, vomiting, hiccough, and, if large, fatal prostration.

If the amount of bile absorbed be great or long-continued, there may be cerebral derangement from the bile poisoning the brain. If long-continued, and there is disease of the liver, we have weakness, emaciation, mal-nutrition, tendency to hemorrhage, purpura, bleeding from gums.

TREATMENT.—Jaundice, from the various causes, is best treated by the administration of an emetic of comp. powder lobelia, with copious draughts of sulphite soda. As soon as this has done its work, then: *R.*—Podophyllin, gr. ss; leptandrin, grs. x; euonymin, grs. v; nux vomica, extract, gr. i.—*Mix.* Make one powder,

and give twice or thrice daily; alternate with six-drop doses of nitro-muriatic acid in water. Paint over the region of the liver with the acid, and sponge the patient with the same, acidulated, at least two or three times daily.

If these remedies do not quickly succeed, alkaline salts should be given, so as to encourage a free action of the bowels, and neutralize any excess of acid in the stomach or bowels.

JOINTS.—The principal causes of disease of joints are scrofula, rheumatism, syphilis and injuries, and each demands a special form of treatment.

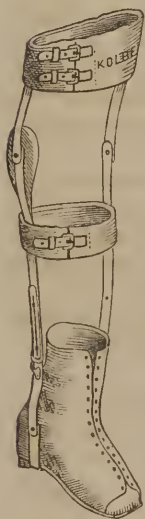
In scrofulous cases we have derived decided results from the acupuncturator, applied freely above and below the joint, exciting a higher grade of inflammation than what exists in the joint. Glycerine and phosphorus internally, stillingia and iodine, &c.

In rheumatism, alkaline packs, alkalies internally, conjoined with alteratives.

In syphilis, nothing can excel the sulphur vapor.

In injuries, irrigation.

In all affections of the joints, *perfect rest*, mechanical support, an equalized circulation, and an alterative course of treatment.



KNOCK-KNEES.—This is due most frequently to a relaxation of the internal lateral ligaments of the knee joints, allowing the femur and tibia to become separated, so that an irregular obliquity of the bone results. It is very common in the delicate and strumous children of our large towns.

It often can be remedied by frictions, local salt water baths, and improving the general health. To relieve this deformity, numerous mechanical contrivances have been constructed and employed. The one represented in the figure is the simplest and most convenient for the patient to wear, while its efficacy is none the less. It consists of a plain shoe, to which two lateral steel bars, reaching to the upper third of the thigh, are attached, and connected with calf and thigh bands; and provided with joints corresponding with the natural articulations, to allow locomotion. The knee is confined in its normal position by a well-padded knee-cap.

LARYNGITIS.—A slight degree of inflammation or congestion of the mucous membrane of the larynx is common as the result of cold; its signs being hoarseness, with a dry, short, harsh cough,

and soreness in breathing. Acute laryngitis of a severe grade is rare—that is, inflammation of the mucous and submucous membrane, but when it does occur the result is often fatal. The inflammation here, it is true, is local; it is a paltry piece of the human mechanism that is attacked—perhaps merely a fraction of an inch, but how terrible the results—congestion first, effusion last, just so great as to prevent as much getting into the lungs as is needed, and when that is reached, life is in danger.

Laryngitis is almost peculiar to adults of an unhealthy constitution, comes on insiduously and at the end of some hours—fever, redness of fauces, difficulty of breathing and swallowing, great anxiety, hoarseness, then great loss of voice, spasmodic exacerbations, paroxysms of threatened suffocation, long inspirations; peculiar wheezing sound, as if the air were drawn through a narrow tube; great difficulty of swallowing, especially liquids; cough, harsh and brassy; face becomes congested; eyes protruded; great distress; rapid movement upwards and downwards, a perfect heaving, resulting from all the muscles of respiration being brought into powerful action—gasping for breath, drowsiness, delirium rapidly usher in death.

The danger here is effusion or infiltration of the sub-mucous tissue pushing or swelling out the mucous membrane, and terminating in œdema, glottis and suffocation.

The importance of active treatment cannot be too strongly insisted on—and the use of drugs of a definite action—something to act on the little spot which stands between the patient and his life. Immediate relief is indispensable, one drop of concentrated tincture veratrum and gelsemin every half hour, until profound relief is experienced, and breathing and swallowing relieved. These remedies should be given in a mucilage of elm in small quantities, and persevered with. Patients who are usually attacked with laryngitis are debilitated, are suffering from deprivation, and an important element in treatment is nutrition. It is true that this does not kill so quickly as the impediment to respiration. We must nourish; if we do not the patient cannot sustain the depressing influence of the devitalized blood, and is less able to repair the local mischief. Enemata of beef essence with some anodyne is well adapted for the purpose of being retained and absorbed.

Solid food is easier swallowed than pure liquids—this is true in all kinds of dysphagia. A greater effort, a spasmodic action, is apt to be induced by the swallowing of fluids by semi-voluntary pharyngeal muscles.

No debilitating medicines can be tolerated in laryngitis. No remedy that increases waste, destructive metamorphosis, can be borne—no lowering of vitality.

Besides the use of veratrim and gelsemin as indicated, rest, perfect quietness, a moist atmosphere, temperature 70°, plain cold water to the throat, atomized spray of warm water, or water medi-

cated with hydrocyanic acid. If that does not afford relief, spray of stramonium, or iodine.

Chronic laryngitis, with ulceration, is not an unfrequent attendant of phthisis. Some cases of the latter begin with it, in others it occurs later in the disease. Syphilitic ulceration of the larynx is common as a secondary symptom. An alterative course, medicated baths, atomized spray are the appropriate remedies.

LEAD POISONING.—Considerable time of exposure to the influence of lead produces disease. Lead in the form of a carbonate, brought in contact with the human body, is slowly but gradually absorbed, being sparingly soluble in the fluids of the body, which are rendered capable of dissolving it by their saturation with carbonic acid. Whenever it comes in contact with the blood, it destroys the red globules, and carried to the muscles destroys their red color, and renders them incapable of contracting except under powerful nervous influence. This poisoning, paralyzing effect, exhibits itself first on the muscular fibres of the intestines, because they are nearest the path whence the poison enters; they are weak muscles, and yet have constant unremitting work to perform, no repose to recover from exhaustion. Colic and constipation from arrested vitality in the intestines is the common result of lead poisoning.

Besides this condition, which gives rise to lead colic, we have the effect on the extensor muscles of the forearm, which, when it lasts for months or weeks, the muscles waste away. The muscles of voluntary motion, especially those exhausted by some peculiar form of employment, most liable to become implicated. Thus, painters who throw a great strain upon the extensor muscles suffer accordingly. The over-exhausted fibres become atrophied, pale, paralytic, while other muscles escape. The affected muscles lose their excitability by electricity, which is either entirely lost or greatly diminished.

The diagnosis is never difficult, attacks of colic, vomiting, and constipation from the action of the lead, paralyzing the circular muscular fibres of the intestines, and superadded to the colic, an intense grinding or twisting sensation round the navel; retraction of abdominal integuments towards spine, a blue line round the edge of the gums.

The most satisfactory results is derived from the following treatment: Give green lobelia and wild yam freely, by both stomach and rectum, thorough relaxation, so as to relieve spasm; then repeated doses of *R*.—Leptandrin, grs. x; podophyllum, grs. xv; croton oil, gtt. i.—*Mix*. Repeat every one or two hours until the constipation is overcome.

Our only curative remedy is iodide potassium, which should be given in every case of lead poisoning. This remedy brings the lead into a soluble form, capable of being removed by the excretions.

The dose should be five grains every three hours. Daily baths of sulphuret potassium have also a remarkable effect in the removal of the poison.

After having removed the cause, rest to the affected parts is important; then the use of electricity; electro-magnetism is a tonic, sedative, antispasmodic, and may be applied to the affected parts with good advantage. Then a general course of treatment to furnish a basis of molecular growth for renewed muscular fibre, which can be accomplished with good diet, iron, phosphorus and glycerine, hydrastis, and a general tonic course.

LEPRA.—The most obstinate and inveterate of all curable cutaneous diseases; a non-contagious squamous eruption, consisting of red and scaly circular patches, of various sizes, scattered over different parts of the body. Very frequently found in the neighborhood of the joints, especially near the knee and elbow. By degrees, patches increase in size and extend along the extremities to trunk. There are numerous varieties: *lepra vulgaris*, when the patches are of moderate size, round, red, and covered with white scales; *lepra alphoides*, when the eruption is small, white, of long standing; *lepra syphilitic*, when it is the result of syphilis, then it is copper-colored.

The peculiar morbid condition which gives rise to lepra is often hereditary; it is also generated under depressing influences, as filth, bad diet, imperfect ventilation, depressing passions.

The secret of success is in getting rid of the cause, and improving, by all medicinal and other means, the organs of assimilation.

The various vegetable tonics are all appropriate, as hydrastin, cinchona, iron, gentian, gold thread. To change the character of morbid assimilation, I have derived very beneficial results from: *R.*—*Stillingia*, Oss; *alnuin*, *irisin*, *corydalin*, *rumin*, aa \mathfrak{z} ii; *tinct. kalmia*, \mathfrak{z} ii.—*Mix.* A teaspoonful every three hours, and alternate with: *R.*—*Glycerine*, \mathfrak{z} iv; *acidum phosphoricum*, dil., \mathfrak{z} iii.—*Mix.* A teaspoonful. These might be alternated with the fluid extracts of *dulcamara* and *sassafras*, and *iodide potass*.

Daily baths must be vigorously persevered with. These, to be of positive value, should consist chiefly of the alkaline, sulphur, and nitro-muriatic acid baths in alternation.

LEUCORRHOEA.—This is characterized by a discharge from the utero-vaginal structure, of a muco-purulent character, of a white, yellow or greenish color, either thin or watery, thick or ropy. It originates in some cause that impairs the healthy tone of the mucous membrane.

The character of the discharge and of the symptoms depends altogether upon the location of the disease, its causes, and the amount of inflammation present. Inflammation of the neck of the uterus causes a discharge of white mucus; vaginal inflammation gives rise to a purulent discharge of a yellow or greenish color; in debility of the mucous membrane of the vagina the discharge is thin, glairy, transparent, and, if long continued, muco-purulent.

The most palpable causes are, the lymphatic temperament, scrofulous diathesis, general debility, relaxation.

Perhaps the most common cause is inactivity and luxurious mode of life—an artificial existence, such as we have developed to a high intensity in our large towns—an indication of the sure progress of degeneration to which city life inevitably leads. Indolence, stimulating drinks, heated apartments, romances, and the whole tone of modern society tend to divert the mind toward sensual enjoyments. Artificial pleasures, such as our females are inured to, must necessarily lead to disease—the violation of natural law.

Demoralization, the result of our town system of luxurious living—a departure from natural laws—inevitably leads to disease; and is it to be wondered at that the degenerate offspring of these artificial human beings should grow up so puny, so weak, mentally and physically, so prone to disease, so incapable of perfectly performing those functions for which nature has designed them?

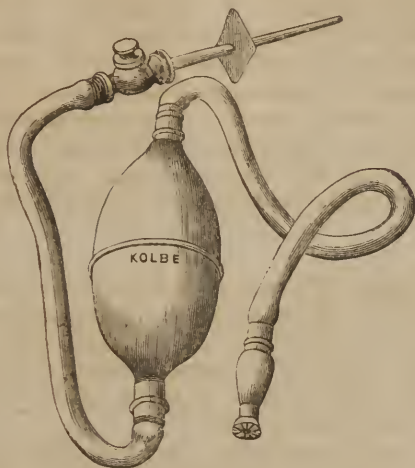
Self-abuse, immoderate sexual indulgences, abortions, congestions of the uterus and vagina, abnormal growths, uterine debility, metastasis of rheumatism, skin disease, syctic poison.

Our warm climate produces relaxation and debility, leads to prolapsus uteri, amenorrhœa, abortion, anasarca, hysteria, general debility. By impairing the energies of the system it predisposes to take on serious disordered action from slight causes; and if the patient be of a lymphatic temperament, or of a scrofulous constitution, and subject to irregular menstruation, the disease often baffles our best treatment. In patients of this class the most insignificant causes are capable of perpetuating the weakening discharge.

Aside from remedial means there are several conditions which are absolutely essential to the successful treatment of leucorrhœa, as active exercise in the open air, avoidance of venereal excesses, a withdrawal of all thoughts or affections from lascivious objects, from crowded rooms, &c.; and lastly, but not the least important, frequent daily ablutions, in order to insure the most perfect cleanliness of the affected parts.

Without daily syringing of the vagina all our efforts at cure will be worthless. The morbid secretion is very irritating in itself; if allowed to accumulate and remain for a long time in contact with the mucous membrane, it becomes partially decomposed, fetid, and highly pernicious to the well-being of the parts. On this account the constant and thorough use of the following, two or three times

daily: *R.*—Water, 1 quart; permanganate of potass., \mathfrak{z} i.—*Mix.* Throw up into the vagina with this syringe.



The patient should sit on an appropriate vessel, and throw up at one sitting, allowing it to come freely in contact with the parts; in order to accomplish this it should be thrown up with some force.

The constitutional treatment should be suited to the cause, whether it be uterine or vaginal.

If the patient is weak, scrofulous, cachectic, and the discharge milky, transparent, and there is lassitude, depression and great debility, nothing exceeds the elixir calisaya bark and iron, in large teaspoonful doses, every three hours.

If it arises purely from a scrofulous cause, iodine, stillingin, alnuin, irisin.

If it arise during pregnancy, pulsatilla is an admirable remedy.

If it is brought on by masturbation, and the nervous system highly or morbidly impressible, bromide potass., in doses of from 10 grs. to \mathfrak{z} i, three times daily, for several weeks; then a general tonic course. If it is an attendant of menorrhagia the following is invaluable: *R.*—Comp. tincture cinchona, simple syrup, aa \mathfrak{z} ii; nitro-muriatic acid, \mathfrak{z} ii.—*Mix.* A teaspoonful every four hours.

If it is depending upon weakness of the utero-vaginal structure, helonin, senecin, trillin, iron, ergot.

If there is symptoms of congestion, fullness, tension, burning on urinating, aconite, veratrum. If there is constipation, nux vomica in alternation with the mineral acids.

The helonin is a valuable remedy in leucorrhœa, being positive in its action upon the part affected.

I find it good practice, in all cases, to ascertain the source of the leucorrhœa. It is very amenable to the above treatment if vaginal, but if uterine, the case is more difficult to manage. There are two

species of uterine leucorrhœa; in the one, the disease is in the cervix, and the secretion is alkaline; and, in the other, the secretion is acid, and the disease is at the fundus. To ascertain definitely, introduce the speculum and pass the sound armed with litmus paper for about an inch into the cervix, and let it remain there till moistened. In this way we find the nature of the secretion; if it is alkaline, introduce the uterine syringe, filled with the following: *R*.—Water, \mathfrak{z} ii; sulphuric acid, 60 gtts.—*Mix* and inject. If the lips of the os are abraded, touch with sesqui-carbonate potass., and throw in the permanganate injection and give alteratives.

LEUCOCYTHEMIA.—The red globules are small round discs suspended in a colorless fluid called plasma, liquor sanguinis, or serum. In anæmia there is a deficiency of red globules; in health they exist in proportion 119 to 1,000 parts of blood; whereas, in anæmic patients, they are often as low as 40 in 1,000. In plethora, the red globules are increased to 141.

Scarcely any condition could be mentioned that may not influence the vital fluid. It may be emphatically asserted that any change of health, temper, emotion, food, air, or variation in function, exercises its effect upon the blood. If, from any cause, we have an unhealthy state of that fluid, the simplest wounds will ulcerate, eruptions appear, scrofula, scurvy, or some other morbid condition of that fluid be engendered.

Unhealthy food deranges the digestive function, and poisons the circulating fluids. The long-continued use of some articles of food produce disease. An excessive use of vegetable acids deteriorates the blood; eating freely of fresh animal food increases the fibrine and richness of the blood, and predisposes to disease. Excess in eating or drinking is the source of a large amount of disease.

An imperfect action of the kidneys, skin and liver is one of the principal causes of disease. Perfect health requires a full performance of all the functions of depuration.

If we have a diminution of the red corpuscles, we have anæmia; if we have depression of the nervous system, with uterine derangement, chlorosis; if we have the lymphatic system, or the spleen disordered, we have the elaboration of the blood corpuscles almost entirely white. A white-cell condition of the blood, then, is no doubt due more especially to a morbid condition of the spleen—that organ which acts as a safety valve in equalizing the circulation, and which, with the lymphatics, exercises such an important agency in the elaboration of that vital fluid. In this morbid state the red corpuscles are greatly diminished; hence the anæmic pallor, emaciation, debility, disordered circulation, depression, hemorrhage from nose, lungs, stomach; jaundice, anasarca, sudden death, rupture of heart.

IN THE TREATMENT, everything that will aid in toning and

bracing up the patient will be of utility. Nourishing diet, stimulants, salt water bathing, sea air, warm clothing.

The hypophosphites are very valuable remedies, given in alternation with comp. tincture cinchona, and the mineral acids. Iron, on account of its excellent tonic properties, most invaluable.

LICHEN.—Willan describes seven varieties of lichen, and the general character of the eruption is the same. The following is an excellent description, applicable to all the varieties:—"The eruption consists of numerous small papillæ upon the arms, breast and limbs, in the first instance, which afterwards spread over the whole surface of the body, attended with tingling and itching, especially when exposed to heat, or when covered up warmly in bed. The eruption is preceded by slight febrile excitement, and symptoms of gastric or intestinal disorder. The basis of the papillæ are red, inflamed and painful, but do not suppurate or become filled with serum, but continue about eight or nine days, when they dry up and fall off in the form of scurf."

Causes.—It generally depends upon some irritation of the stomach and intestines, as errors in diet, worms, teething, exposure to heat.

The treatment for all the forms of lichen are pretty near the same: tepid alkaline baths, daily; mild laxatives; an unstimulating diet, correcting the irritation of the stomach with bitter tonics, mineral acids, glycerine and phosphorus, tag alder and sassafras.

LIPOMA.—This is met with in men who indulge in the pleasures of the table. It consists of an hypertrophy of the skin and subcutaneous tissue of the apex and alæ of the nose. Careful diet and avoidance of stimulants, with a well stimulated liver, and the application of the following to the nose, to be kept on over night:

R.—Sulphur ointment, ʒi;
Iodide potass., ʒiii;
Muriate ammonia, ʒii;
Nitrate potass., ʒi.

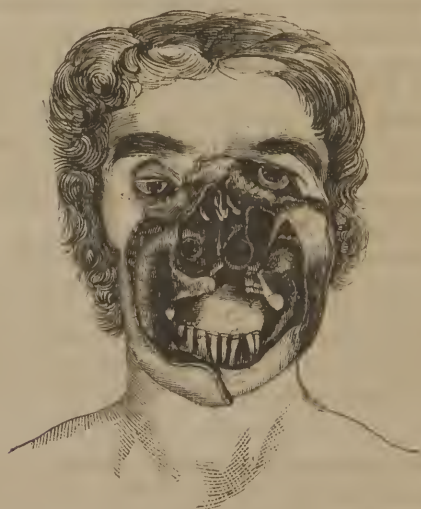
Mix and apply.

LUPUS.—Induration, or tubercular swelling of the skin, which may or may not ulcerate. In the former case ulceration may occur at the summit or at the base of the tubercles, and frequently extends in the form of a circle, more or less complete. It most frequently attacks the nose. It is essentially a form of scrofulous ulceration. Two forms are recognized—*lupus non-exedens* and *lupus exedens*. In the former there is no ulceration, merely an exudation of tubercle, which is often extensive, spreads rapidly and superficially; the latter is more rapid and destructive, eats the alea of the nose or soft parts of the cheek. Both forms are essen-

tially the same, the mild form being of less intensity and slow in its progress; the more aggravated form being a high intensity, essentially and truly destructive.

Lupus exedens is characterized by continuous destructive ulceration of the skin, subcutaneous connective tissue, muscles and other parts, at length involving even the bones, and producing the most hideous deformity.

Scrofulous diathesis the predisposing cause—pure and simple scrofula; the exciting cause some depressing influence.



The only local treatment available is free destruction of the entire tubercle by the caustic potassa, repeating the application until a healthy surface reveals itself, then dress with an alkaline solution, either the ordinary bicarbonate soda or permanganate potassa, in the proportion of five grains to the ounce of water—sprinkling on the chloride of gold and soda, and over and above the alkaline lotion.

The grand point in the treatment of lupus is the improvement of the health of the patient. The secretions should be well stimulated, especially the dormant liver and dry skin; for the former give nux and leptandrin; for the latter daily alkaline baths, medicated with iodine so strong that they slightly tint the skin.

The origin of the tubercular diathesis is to be found in an impaired vital force—an enfeebled nervous system; so remedies that will give tone and vigor to that part are highly advantageous; these consist of phosphorus and glycerine, or the following:

R_y.—Huxham's tinct. cinchona, ℥iv; acid phosphoric dilutum, nitro-muriatic acid, āā ℥i.—*Mix.* A teaspoonful thrice daily; or

hydrastis and iron. Remedies directed to the improvement of the nervous system have a most beneficial effect in preventing the exudation of tubercular matter; fresh air, good, highly nutritious food, friction to spine.

If the case runs bad, Logul's solution of iodine in comp. syr. stillingia is an invaluable remedy, and its efficacy may be further increased by alternating with $\frac{1}{30}$ gr. chloride of gold and soda. The elixir calisaya bark and iron is a superior tonic; sea bathing assists remarkably in treatment.

MAMMARY GLAND.—The mammary gland consists of a series of tubes, radiating from a common centre—the nipple, which is situated in an areola or dark colored patch. On the surface of this patch are numerous sebaceous glands which secrete an oily substance to protect the skin of the nipple, which is very thin, from the saliva of the child. The milk ducts usually number from eighteen to twenty, enlarge into sinuses, and pass each to a separate lobe or division of the breast, where they divide into twigs or branches, and terminate in minute vesicles. The lobes are held together by fibrous tissue, well packed in fat, which increases sometimes to an enormous extent the apparent size of the organ.

Acute inflammation of the breast is the most common affection of that gland, and this is characterized by pain, heat, tenderness, great swelling and fever. This is liable to occur at any period of lactation, and sometimes arises from very trifling causes, as cold, constipation, stimulating food.

The most active treatment should be adopted to subdue the inflammation. The bowels should be well acted on by hydragogue cathartics, comp. powder of senna and jalap; then put the patient upon five drop doses of the tinctures veratrum, aconite, belladonna and gelsemin every two hours, till the circulation is thoroughly controlled, say 70. To the breast a poultice of belladonna leaves and compression.

If unable to abort the inflammation, its most common termination is the formation of an abscess which may form in the substance of the gland, or between the gland and the skin, or between the gland and chest walls.

The characteristic symptoms are, rigors, engorgement of the gland; deep seated, or diffused burning pains, throbbing, then a painful point may be detected, fluctuation.

The only proper treatment is to open at the most depending part, but if from some cause there is an aversion to the use of the knife, apply a small poultice of powdered mandrake over the softest part, and we will have a spontaneous exit of the pus in a few hours. Elm poultices are advantageous afterwards for a few days, then the black salve. In the management of these abscesses *pressure*, either with adhesive strips or a roller, is highly advantageous to promote rapid cicatrization and prevent sinuses. If such

form, stimulate them by throwing in weak injections of sesqui-carbonate potassa.

Whenever an abscess forms, tonics, stimulants, nourishing food are indispensable to furnish the system with the proper elements for repair.

Hypertrophy of the mammary gland is not uncommon, the cause is often obscure; in other cases it can be directly traced to masturbation.

If to the latter, large doses of bromide potass. should be given, and the following kept applied to the gland: *Ry.*—Ext. belladonna, $\mathfrak{z}\text{i}$; iodide potass., $\mathfrak{z}\text{ss}$.—*Mix.* Spread on leather and apply with firm compression.

Mammary Tumors.—The causes which excite glandular growths are not always apparent. They may be constitutional and local, and in the latter case the irritation exciting them may be direct, as from a blow; indirect, as from a neighboring sore; or reflux, as when uterine disease affects the mammae. Often, when the apparent cause is removed, the glandular growth disappears, but in other cases it grows independently of any cause. The only explanation that has been offered on this subject is the following:

Irritation communicated to the gland, whether reflex or direct, operates by stimulating it to increased cell growth, and by augmenting the flow of blood. Hence ensues turgescence and enlargement, with the formation of cells, which often occurs in such numbers that they cannot escape. The follicles also enlarge more or less rapidly according to the amount of irritation and increased nutrition which results, and in this way we have a power of independent development set up, and if the stimulation is permanent the tumor is persistent.

The most common description of tumors that are met with in the breast are the lacteal tumor, fatty tumor, fibro-plastic growths, hydatid cysts, mucous cysts and malignant growths.

Sore nipples are a frequent result of inflammation. Among the numerous remedies for excoriations, cracks, fissures, and ulcerations of the nipples, nothing can excel the sulph. hydrastin, sprinkled on the abrasion. This remedy is superior to all others. Lycopodium powder is also excellent.

Neuralgia of the Breast is frequently due to uterine or ovarian irritation. There is invariably a disorder of the health, common in patients of a nervous temperament.

The cure of the disorder on which the pain depends is the first point, then the special treatment to subdue inflammation of the nerves. No remedy is so valuable as belladonna, locally and internally, alternated with gelsemin.

Infants a few days after birth, and children at puberty, are liable to enlargement, and even secretion of milk. The disorder subsides spontaneously unless irritants are applied.

The only remedy is belladonna, which possesses true curative power.

MALARIA.—The active principle of malaria has been discovered to be sulphureted hydrogen. This gas is evolved from decaying vegetable matter, when the temperature exceeds 70°. It is produced in marshes where sulphates exist, either in the vegetable matter, water or soil. The agents which decompose sulphureted hydrogen are inimical to malaria, as sulphurous acids, chlorine, quinine, prussiate iron, &c.

Malarial poison has a special affinity for the nervous system; hence its intermittent type, various nerve affections, as a result of the disease.

As an abortive mode of treatment, give an emetic of common salt, and keep the patient for two or three days in the recumbent position and thoroughly relaxed with gelsemin, and every four hours five grains sulphite soda.

MARASMUS.—The effusion or deposit of tuberculous matter from the blood in and upon the mesenteric glands of the bowels is the cause of marasmus; this effusion on this particular part of the body being inimical or prejudicial to assimilation.

The depression of the vital forces, which exists in tuberculous conditions, is essential to the production of this condition; the elaboration of an excess of albuminous matter from the blood a grand predisposing cause; diarrhœa, cholera infantum, exciting causes.

In all cases of marasmus we have a valuable remedy in phosphorus, in the form of hypophosphates; it gives most decided, effectual and immediate relief. The curdled vomitings, green motions, quickly disappear, and an improved condition of the health is established.

Juice of beef, milk and white of egg, our best diet. Salt water and iodine should be the standard bath. To improve the character of the alvine discharges, leptandrin, grains two; nux vomica, extract, a quarter of a grain; liquorice, pulverized, grains ten.—*Mix.* Give at bed time.

MENORRHAGIA.—Uterine hemorrhage may take place at any period of life, from puberty to old age, and in every variety of temperament. Probably the most common kind of menorrhagia is that which happens during the periods of menstruation from a congestion or relaxation of the uterine vessels. At the throwing off of the ovum (which occurs every four weeks from puberty to the change of life,) a certain amount of menstrual fluid is thrown off, and this natural secretion is determined by the temperament, constitution, mode of life of each particular individual. The nearer a female lives in accordance with the laws of nature, the less likely is an excess of blood from the uterus liable to occur.

The symptoms which attend the flow depend entirely on the nature of the case, the constitution and amount of blood lost in

each instance. In mild cases we may merely have a sense of lassitude, debility, weariness, uneasy sensation in the back and limbs, indisposition to exercise, a feeling of sinking at the pit of the stomach, paleness of the face, cold extremities. In more aggravated cases the patient becomes perfectly prostrated, the surface blanched, syncope, ringing in the ears, impaired vision, coldness of the surface, great undefinable uneasiness and nervous irritation. The blood flows upon every exertion, or on coughing, sneezing, or vomiting. Then faintings, respiration and circulation almost suspended, the blood clots at the mouths of the uterine vessels, and thus the hemorrhage may be temporarily arrested.

When reaction occurs, the clots are expelled by the contractile power of the uterus and the flowing reappears.

Menorrhagia, when it originates in organic derangements of the uterus, as indurations, cancers, tumors and ulcers, is accompanied with symptoms peculiar to the different maladies.

The predisposing causes of this affection are improper physical and moral education, excesses in eating and drinking, insufficient nutriment, serofulous, syphilitic or psoric taints, pressure of the abdominal viscera downwards on the uterus, ardent sanguine temperament, a plethoric habit, a lymphatic temperament and a relaxed habit.

The exciting causes, irritation, congestion, or inflammatory condition of the uterine vessels, the various disturbances of pregnancy, cancers, ulcers, tumors, sexual excitement, stimulating drinks.

Menorrhagia is always amenable to treatment, unless it depends upon some organic affection. Whenever it occurs, it requires bold, prompt and judicious efforts to keep the patient from fatal prostration.

TREATMENT.—The first point in treatment is to remove the cause, then put the patient to bed, head low, pelvis well elevated, cold drinks, perfect rest, a roller should be applied moderately tight from the umbilicus to the middle of the thighs, with a pad over the uterus, and if the hemorrhage does not quickly subside, the tampon should be used, and then a special course of treatment to effect a cure. Remedies adapted to the peculiarities of each case:

Erigeron is well adapted to those cases where we have a continuous oozing from the walls of the uterus. Give in fifteen to thirty drops beat up in sugar, every half hour, according to the indications of the case.

Gallie acid may also be given with the most successful results. A valuable remedy in all hemorrhages from mucous surfaces.

Cinchona is best adapted to patients of a sanguine temperament, when the discharge has existed for a considerable time, and produces an anæmic condition. An invaluable formula:

R.—Huxham's tincture cinchona; simple syrup, āā ʒiv; nitro-muriatic acid, ʒii.—*Mix.* A teaspoonful every two or three hours.

Ergot has a specific influence in uterine hemorrhage, exciting uterine contractions, and in this may arrest the hemorrhage.

Iron is indicated in profuse hemorrhages, when the menorrhagia is accompanied with other symptoms of dysmenorrhœa; valuable also in enfeebled or cachectic females; the persulphate of iron, ʒss, to two ounces of water injected into the uterus will arrest it at once.

Digitalis is valuable in lymphatic and plethoric habits. This remedy, given in eight drop doses and repeated frequently, exerts a special influence over involuntary muscular fibre, causing its contraction to be more firm and powerful, and exerts this influence most especially when that fibre is lax. *Digitalis* acts upon the involuntary fibres of the uterus, renewing their tone, bracing them up and stopping the menorrhagia of relaxation.

Cannabis indica is valuable in uterine hemorrhage, acts almost like magic.

Pulsatilla is often valuable in profuse hemorrhages.

Carbolic acid is best adapted for injection, but well adapted to be given internally where the blood is thin, watery, and not coagulable.

Hamamelin, collinsonin, trillin, lycopin, senecin, are appropriate and very efficient remedies in passive hemorrhages of the uterus, when they depend on an enfeebled and relaxed condition of the organ.

In urgent cases of uterine hemorrhage, give the remedies in doses sufficient to control the flooding, cold water applied over the pulses, the hips must be elevated and supported, head and shoulders lowered, the patient kept cool and free from excitement.

METRITIS.—Inflammation of the uterus is comparatively a rare disease. When it does occur, it is always ushered in by truly characteristic symptoms, as rigors, followed by fever, fullness, weight, heat about pelvis, with throbbing, tenderness about the pubes, groin and perineum. Great irritability of the bladder, nausea, vomiting, diarrhœa, with tenesmus and mucous discharge. Whenever the patient is placed in the recumbent position immediate relief is experienced. It is liable to terminate in any of the ordinary results of inflammation.

The treatment should be thorough; the circulation should be controlled with veratrum and asclepias, complete rest in the recumbent position rigidly enforced—over the region of uterus an elm poultice, which is a powerful means of restoring the deficient vitality. In alternation with the veratrum, give opium in full doses; this remedy is urgently demanded. Here it will control and lower the circulation, diminish the frequency of the pulse; the best rule for administration is to give it till all pain is effectually removed. The treatment here brooks no delay. Lost minutes are very injurious.

In the convalescing stages, nourishing food, fresh air, warm hip baths, an alterative course of treatment. The following formula I regard as one of the best for the inflammation, if it assumes the sub-acute form. *R.*—Comp. syr. partridge berry; Comp. syr. caulophyllin; fluid ext. collinsonia, āā ℥ii; tinct. aconite, ℥iii; bromide potass., ℥i.—*Mix.* A tablespoonful every three hours.

MORBID THIRST.—An intense craving for stimulating beverages, with great depression and extreme restlessness. It is a common symptom of delirium tremens, and supposed to be caused as follows: the continued use of alcohol leads to induration of the brain, induration leads to anæmia of nervous centres, the same *poison* operates deleteriously on the liver and kidneys, causing fatty and amyloid degeneration, with dropsy as an attendant; the same *poison* is a mechanical and chemical irritant to the coats of the stomach, hence inflammation and congestion; this *poison* over stimulates the heart, produces over-work with consequent exhaustion. Combine all these morbid conditions with the law of habit, and we have a thirst which is difficult to control, due to a degrading vice and morbid condition of all the organs of secretion.

The best remedy is abstinence from intoxicating drinks; but as that is often impossible, large doses of lupulin and gelsemin are indicated. If those do not succeed, hyoscyamus, alternated with quinine and nux vomica; iron, phosphorus, nourishing food; cannabis indica is often of utility.

MOUTH.—On the mucous membrane of the mouth and cheeks, there are various forms of ulcers met with, from the simple ulcer, aphthæ, thrush, cancrum oris, &c., all inviting nearly the same form of treatment, to wit: improve the condition of the stomach, bowels, skin; promote nutrition with phosphorus, glycerine and hydrastin. To the ulcers, nothing excels the nitric acid—touching them with the pure acid, then washing the mouth with sulphite soda ℥i to water ℥i. Another invaluable wash is sulphate hydrastin, grs. v; water, ℥i. Wash every three hours. In all these affections, the use of yeast or baptisin is attended with excellent results. A tablespoonful of the former, or ten grains of the latter, at least once, daily.

MUSCLES—become diseased from various causes; the most common form of disease is atrophy, which may result from over-work or inactivity. The defect in both cases is a want of renewal—in over-work a demand is made, but from sheer exhaustion cannot be supplied; it is so used up that the nerve force, which should govern the metamorphosis, is dormant—in inactivity, no new store of muscular substance is laid in, and in both cases degeneration takes place.

Muscles affected with atrophy are soft, friable, pale, and almost destitute of contractility, and, if the morbid condition continues, they lose their power of contractility, become inelastic and degenerate into fat.

The treatment of the degeneration of muscle is most important—*rest*, animal food, mineral acids, glycerine, phosphorus and iron to supply a basis for molecular growth; hydrastin to brace up mucous membrane, to cause it to absorb more rapidly; vegetable tonics to tone renewed muscular fibre.

MYALGIA.—Muscular pain, without inflammation or other well-defined disease, is often met with. It often arises from fatigue, and seems to be present in those affections of the blood, as scurvy, cancer, leucocythemia; debility and fatigue are then the principal causes. The pain in all cases of myalgia is independent of the course of the nerves, and always aggravated by depressing remedies, but relieved by measures calculated to raise the tone of the system.

Rest, tonics, warmth, meet the indications most exactly. Hydrastin, cinchona, phosphorus, glycerine, mineral acids, animal food, milk, cream, eggs, stimulants.

The following is an invaluable liniment to the affected muscle: *R.*—Chloroform, tinctures aconite, belladonna et veratrum, āā, ʒii. —*Mix*, and rub or apply on flannel. The hot bath or douche, shampooing will often give relief.

MYELITIS.—This is excited by cold, damp, wounds, contusions. It is very apt to terminate in softening.

The symptoms of this uncommon affection are, constant and severe pain in the back, increased by motion; spasmodic contractions or rigidity of the muscles, followed by paralysis, fever, arrest of the secretions. In pure myelitis there is pain, muscular rigidity, and paralysis of motion and sensation. In the early stage the pain is increased by heat, as the application of a hot sponge.

If the cranial portion of the cord be affected, deep-seated headache, convulsive movements, inarticulate speech, lock-jaw, difficult deglutition, spasmodic breathing, irregular action of the heart, some form of paralysis. If above the origin of the phrenic nerve, death may occur from cessation of respiratory movement.

If the inflammation be limited to the *cervical* portion, difficulty of swallowing, impossibility of raising the head, difficulty of breathing, pricking, or a sensation as if pins and needles in the upper extremities.

If the *dorsal* region be the seat of the disturbance, we have pain over the affected part, numbness in fingers and toes, convulsive

movements of trunk, paralysis of trunk and lower extremities, pulmonary and cardiac disturbance.

If the *lumbar* region, paralysis of the limbs, retention of the urine, paralysis of bladder, involuntary stools.

TREATMENT.—Free cupping along the spine, followed by the irritating plaster, and active purgation with podophyllin, jalapin, constitute the essential part of treatment, with a perfectly equalized circulation by veratrum, aconite and belladonna. The bladder to be looked carefully after, and to be emptied by the catheter. Then the patient should be put upon large doses of bromide potass., in comp. syr. stillingia, from \mathfrak{zss} to $\mathfrak{z}\mathfrak{i}$, every four hours.

Softening of the spinal cord is the most common lesion; probably more frequently met with than atrophic degeneration.

The symptoms of this condition are, numbness in the extremities, a sense of coldness, pain in the back, local tenderness on pressure, and gradual loss of sensation in the limbs. If the *anterior* columns only are softened, motor paralysis prevails; if the posterior columns, sensibility is impaired or destroyed.

Recovery from spinal softening is rare, and only to be attained by thorough and rigid treatment. The most unfavorable symptoms are, decided paralysis, involuntary urination and defecation, with alkalinity of the urine with an immense amount of phosphates.

The only treatment that is available is the administration of the different preparations of phosphorus, tonics and support. Passive exercise, as riding in a carriage, sailing, salt water bathing, frictions to the surface of the body, bracing tonics, good diet. Stimulants, carefully regulated, if they do not cure will retard the disorganization.

MUSCAE VOLITANTES.—Little specks or floating black spots, which fly over the field of vision, due to minute floating bodies near the retina. Being in all cases due to debility, it may be that the specks are nothing more nor less than effusion.

The removal of the cause, the fresh air of the country, with tonics and alteratives, generally cures.

NAEVUS.—This is a growth formed by enlarged and dilated arteries, veins, or capillary vessels. An *arterial* nevus begins in youth, the dilated vessels are enlarged, elongated, tortuous, forming an irregular shaped tumor, which is compressible and pulsating; *venous* naevi are irregular, of a purple color, doughy to the feel, and diminished by pressure; *capillary* naevi are the most common, and consist of vivid red or purplish spots. There are three good modes of treatment.

(1) *To excite inflammation and coagulation of its contents, trusting to nature to absorb the coagulation.* This can be effectually performed by injecting a few drops of the muriated tincture of iron;

various other remedies will answer as well, as a solution of carbolic acid or tannic acid.

(2) *Destruction by caustics.*—Protect the adjacent parts carefully, then apply the caustic potassa freely, followed with vinegar and an elm poultice.

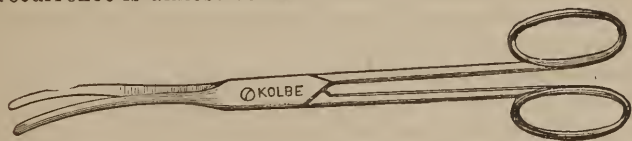
(3) *Removal by the knife or ligature;* seldom resorted to by progressive physicians.

NASAL POLYPUS.—This is supposed to originate in some constitutional dyscrasia. It is generally found protruding from the mucous membrane. Nasal polypus are of three kinds: *gelatinous*, *fibrous* and *medullary*. In some cases a polypus of the nose commences from a small swelling of the pituitary membrane, and gradually enlarges until it fills up one nostril and entirely obstructs the other. Others commence on a carious point of some of the bones which form the internal surface of the nostrils. The gelatinous are soft, resembling an oyster in appearance, bleeds on the slightest touch; the fibrous are hard, compact; whereas the medullary is soft and resembles brain.

In the nasal passage, polypus gives rise to the sensation as if there were a foreign body in the nostrils, thus giving rise to an irresistible desire to blow the nose; increased mucous discharge; frequent attacks of epistaxis; the sense of taste and smell greatly diminished; dullness of hearing if it presses on the orifice of the eustachian tube; articulation indistinct; deformity of cheek; obstruction to tears, and, perhaps, pressure on brain. The diathesis being strong they are very prone to return after removal.

There are numerous modes of removal.

Snipping them off is likely to be attended with hemorrhage, and their recurrence is almost certain.



Seizing them with the polypus forceps and giving them a twist, a half turn once in the twenty-four hours, they will slough off, as this mode effectually interrupts the circulation through them.

Ligation, by passing a ligature round the pedicle moderately firm and permitting it to slough off.



By snuffing up such agents as pulverized blood-root and causing its destruction.

Sanguinaria has been used by all eclectic practitioners as the most effectual remedy for the radical cure of polypus. It should be snuffed up the nostril every two hours, and in from forty-eight to seventy-two hours the polypus will break; continue the remedy a couple of days more and its destruction is complete.

An energetic alterative course of treatment should be at once adopted and continued for months, alnui, iris, stillingia, phosphorus, hydrastis, &c., &c., are remedies antagonistic to the diathesis.

NECROSIS.—This is usually the result of inflammation in bone, and is analogous to mortification. The term is usually restricted to the solid portion of the long bones—caries when it attacks the spongy portions. Inflammation of bone is predisposed to by syphilis, scrofula, mercury, and excited into action by mechanical violence.

The only treatment successful is free incision, removal of the sequestrum, or death portion, which only acts as an irritant or foreign body. After that is done, an alkaline injection should be thrown into the sinuses twice daily, as follows:—*R*. Caustic potassa, $\mathfrak{z}\text{i}$; water, *Oi*.—*Mix*. Throw in an ounce or two. It has a most decided effect on the morbid condition, and can be continued somewhat weaker for many weeks. The dressing, otherwise, Beach's black salve. Constitutional treatment is of great value—chiefly elements from which the system can elaborate new bone; most nourishing diet, vegetable and mineral tonics, as hydrastis, cinchona, iron, phosphorus, glycerine, cream, albumen, fresh air, salt water baths.

NEPHRITIS.—The office of the kidneys is the secretion of urine, an important function, for, if from any cause, their action is suspended, death rapidly takes place; hence, diseases of these organs are of the greatest moment.

Inflammation of the kidneys is not uncommon. It is recognized by the deep-seated pain in the small of the back, on one or both sides, often extending down the inside of the thighs. The pain is increased by pressure, change of position, coughing. The urine is scanty, high-colored, albuminous, bloody, and deposits pus or other products of inflammation on standing. There is fever, preceded by rigors, nausea, vomiting, constipation.

The terminations of nephritis are, resolution, suppuration, induration, scirrhus or gangrene. The duration of the acute stage is from six to nine days, when one of the terminations takes place.

If the termination be resolution, it is indicated by a gradual return of all the functions to a healthy standard, increased secretion of urine, perspiration, subsidence of pain, ability to lie on the affected side.

If the termination be suppuration, the pains are less severe, rigors or shiverings, throbbing pain in the region of the kidneys,

pus in the urine, a sensation of numbness in the affected side, and it sometimes may be recognized by the swelling and fluctuation in the part.

The causes of inflammation of the kidneys are various; mechanical violence, exposure to wet or cold, and to the ingestion of substances which have the property of irritating the kidneys, as oil of turpentine, cantharides, a gouty or rheumatic diathesis; the presence of concretions may be causes. Any condition capable of producing retention of urine, and causing a dilatation of the pelvis of the kidney, may occasion inflammation, as stricture of the urethra, stone in the bladder, affections of the spinal cord, producing paralysis of the urinary organs.

In chronic inflammation most of the symptoms are present, but in a milder form, and there is little or no febrile disturbance.

TREATMENT.—Frequent external applications of cold water over the inflamed kidney will be of great service in reducing the superfluous animal heat, and thus allaying inflammation. The water should be applied cold, and repeated till the temperature of the part is permanently diminished, and the pain abated. As soon as we see the case we can have recourse to aconite, either alone, or in alternation with gelsemin, and these remedies should be continued until the febrile symptoms have subsided. These two remedies, with water and perfect rest, are the entire treatment of nephritis. An excellent drink is a decoction of elm.

If these remedies are not at hand, give lobelia; this equalizes the circulation, subdues inflammatory action, and restores the functions of the skin.

Nephralgia usually depends upon the passage of a concretion through the ureter, and is one of the most painful affections to which the human frame is subject. It usually comes on when the concretion makes its way from the pelvis of the kidney into the ureter, and does not cease till it has passed into the bladder. During an ordinary fit of gravel a severe pain is felt in the loins, extending to the groin, thigh or abdomen, and, if a male, causes retraction of the testicle. The pain comes on in paroxysms, with intervals of comparative ease. The paroxysm is usually accompanied with vomiting, a small and feeble pulse, and profuse perspiration, a great desire to pass urine, but the effort is usually futile; when the concretion reaches the bladder the pain suddenly ceases.

The sudden accession and paroxysmal character of the pain, and absence of fever, are the characteristic points.

Gelsemin here is our sheet-anchor, giving the medicine in some form, every half hour, until the pains are alleviated, or symptoms of the narcotic influence of the drug begin to manifest themselves; hot fomentations of lobelia over the loins.

Bright's Disease.—The degeneration of the kidney, in various forms, has been classified under this name. The most common form is a degeneration of the kidney into fat. This degenerated

condition impairs the excreting powers of that organ, so that the urea is not sufficiently separated from the blood. The flow of urine, when charged with urea, is retarded through the minute vessels; congestion occurs, and exudation of albumen and fibrin is the result. But it is well to bear in mind that the primary cause of the disease is not in the kidney, but in the blood; that the kidneys become secondarily affected. We must look, first of all, then, to the blood for the essence of the malady, and this generally consists of effete matter from disease, noxious drugs, arrested perspirations. Nature strives to eliminate all disturbing agents, through one or more of the emunctories of the body, and she always selects the most appropriate channels for their escape. The effort of nature to eliminate the poison of small-pox from the system is by the skin, by suppurating pustules, loaded with poison; if that fails, the kidneys suffer. The natural eliminators of the scarlatinal poison are the skin, mucous membrane of the throat, and intestinal canal. If the vital forces are feeble, or fail to perform their work, an extra amount of labor devolves upon the kidneys. In measles, erysipelas, and the long category of cutaneous diseases, we often have the kidneys to perform an excessive amount of work, but, besides, we have the passage of a poison through the *tubuli uriniferi*; an inflammatory congestion is produced, which prevents the malpighian corpuscles and the epithelial cells of the tubes from separating from the blood normal urine, and permits the passage of albumen, fibrin, and other abnormal constituents.

When renal inflammation results from the action of a passing irritant, it causes deep-seated and vital derangements, which originate the complaint.

Albuminous urine has been detected in typhoid fever, cholera. The most common and characteristic phenomena connected with Bright's disease consists in the presence of albumen in the urine, and, from this circumstance, it has received the appellation of albuminuria. Another symptom is the retention of urea in the blood, to which the term uræmia is applied.

The nature of the obstruction to the renal function differs under a great variety of circumstances, but such as are accompanied with persistent albuminuria and dropsy may be classed under three heads: *first, inflammation; second, waxy degeneration; third, fatty degeneration.*

1. INFLAMMATORY FORM.—This may be acute or chronic, and all the symptoms of inflammation of the kidney may be present, either in an acute or chronic form, and the occurrence of dropsy may be the only symptom that attracts attention. On testing the urine chemically, it is found to be albuminous. On examining it microscopically, various casts, with epithelial cells, blood corpuscles, and other morbid products, may be seen—exudative casts of the uriniferous tubes—desquamative casts, epithelial matter, and free nuclei of the tubes.

2. **THE WAXY FORM.**—This is the form met with in the scrofulous or tubercular diathesis. Dropsy and a peculiarly cachectic and emaciated look constitute the chief symptoms. The sediment in the urine is usually small, presents pale casts of the tubes, (waxy casts,) with a few colorless and transparent epithelial cells.

3. **THE FATTY.**—This is the form that is so frequently met with in advanced life, in patients suffering from cardiac and bronchial disorders, in those addicted to over-indulgence in alcoholic drinks. Dropsy and persistent albuminuria are constant symptoms, and the sediment is loaded with casts of the tubes, containing oil granules (fatty casts.)

CAUSES.—The direct cause is the passage through the malpighian corpuscles and the secreting tubes of the cortex of effete and excrementitious matters derived from the blood. Not an uncommon cause of this disease is the dissemination of poisonous drugs, alcoholic liquors, fevers, &c., &c.,—some irritant which excites inflammation, and the organ weakened by that process, may after a period take on a fatal chronic degeneration. A primary inflammation leaves the renal tissue thickened and obstinate by a foreign substance—effused lymph. This infiltration may remain dormant for years, until some disturbing element gives rise to some form of renal degeneration, and that kind of degeneration will be determined by the exciting cause, and the constitutional and acquired peculiarities of each case—some constitutions favoring the development of granulations; some, fatty degenerations; others, scrofulous degenerations.

The diagnosis in all cases depends on three kinds of observation. Symptoms, chemical and microscopic examination of the urine. The symptoms at first are nearly allied to inflammation of the kidney, followed with dropsy, but these symptoms are vague until we test the urine, and if there is a persistency of albumen in the urine, and the peculiar exudative, desquamative, fatty and waxy casts seen under the microscope, we are warranted in pronouncing the case one of Bright's disease.

TREATMENT.—The treatment of this disease involves an extensive range of remedies, so much so that we can but briefly recapitulate them.

The acute form should be combated by aconite, warm fomentations over the loins, and by diaphoretics and diuretics. Aconite and comp. tincture serpentaria are best calculated to relieve congestion. In all cases the greatest possible attention should be paid to diet and exercise. No fat or articles that are likely to become fatty; no acids, nor articles likely to generate acidity, can be tolerated in degeneration of the kidney. The best diet is abundance of animal food, eggs, milk, fish, change of air, a sea voyage very beneficial. The general management of each particular case should be upon general principles, special remedies to particular cases.

In all cases there are two classes of remedies that should be given, diaphoretics and diuretics.

The intimate connections and perfect harmony which exists between the kidneys and skin as excretory organs are well known. In health, arrested function in the one is compensated for by increased function in the other; so that any disease of the skin, anything that checks cutaneous exhalations, is peculiarly liable to excite renal disorder. In our efforts to cure, we should endeavor by all means in our power to excite the action of the skin, so that the diaphoretic powders, comp. tinct. serpentaria, warm to the surface, hot-air baths, warm climate, are all indispensable in treatment.

Diuretics are very valuable where the kidney is more or less congested and loaded with exudation—diuretics stimulate the kidneys to increased action. The dropsy is induced by obstruction in the secreting tubes—this obstruction is often the product of inflammation, so that, by increasing the flow of urine, the accumulations producing the obstruction may be washed away.

The whole class of diuretics may be used, but the most valuable are, the queen of the meadows, buchu, bitartrate potassa.

After having rectified the secretions, relieved any temporary congestion of the kidneys, then a point of vital importance is, to increase the number of the red corpuscles by the administration of iron, phosphorus, and vegetable tonics, and if the blood poisons the nerve centres, the use of hydrochloric and the vegetable acids, sponging the patient with vinegar, and relieving the brain with cathartics. We subjoin the indications for the use of a few of the remedies which are of the highest utility in Bright's disease.

Gallic acid exercises a specific upon the kidneys, astringing them and preventing the escape of albumen—it should be given in from ten to twenty grains in a little port wine thrice daily.

Podophyllin, *elatrín*, *apocynin*, the various preparations of potassa and ammonia, if we are sure that we have obstruction of the renal tubes.

Asparagin exercises a soothing effect upon the convoluted tubes.

Cannabis indica, when we have cerebral complications and convulsions.

Copaivin operates specifically upon the epithelial cells. Its well known action on the skin, producing an inflammation of that surface, perhaps is of most value as a remedy in these cases.

Cannabis sativa is very useful in cases preceded by stricture and irritable bladder.

Digitalis is best adapted for the sanguine temperament or scrofulous diathesis. It operates specifically upon the heart and kidneys—its action upon the urinary glands is prompt and positive.

Nitro-muriatic acid is very valuable in cases depending upon syphilitic contamination.

NEURALGIA.—By the term neuralgia we understand violent pain in the trunk or branch of a nerve, occurring in paroxysms.

It may attack all the nerves of the body, but the nerves of the head, trunk, or extremities are most obnoxious to its attacks. Different names have been given to it, according to its location. The most common seat of neuralgia is the first, second and third branches of the fifth pair of nerves, and in the portio dura. When the branches of the fifth pair are affected, *tic douloureux*; certain nerves about the head, *hemicrania*; sciatic nerve, *sciatic*.

Neuralgia is an inflammatory condition of the nerve, and the cause may be central in the brain or spinal cord, or peripheral and reflected.

It is a diseased condition common in all periods and countries, more common among females than males.

Tic douloureux, like all nervous affections, is often hereditary, very common among females near or past the middle of life; it is developed by constitutional nervous irritation, as chlorosis, hysteria, mental emotion, grief, menstrual irregularities, debilitating discharges, malaria, affections of the teeth, atmospheric change.

This form is essentially an affection of the terminal branches of the fifth pair of nerves; the trifacial. This nerve arises by two roots from a tract of yellowish white matter in the front floor of the fourth ventricle. It passes forward to the petrous portion of the temporal bone, where it spreads into the gasserion ganglion. This ganglion divides into three main branches—the ophthalmic, the superior maxillary, the inferior maxillary. Other nerves often become involved in facial neuralgia. The portio dura of the seventh pair is often affected.

The disease is constitutional when it attacks the system generally, or some remote part of it without apparent cause. Local when seated in or near the affected part, irritated by some foreign substance.

The three branches of the fifth pair of nerves then are commonly affected; if the first or ophthalmic branch is affected, we have supra-orbital neuralgia; if the superior maxillary branch, infra-orbital; if the inferior branch is affected, then it is chiefly confined to the dental nerve.

Whichever nerve suffers, the torture is extreme; pain occurring in paroxysms, lancinating, burning attacks, generally preceded by derangement of the digestive organs; by dyspnœa; by slight rigors, followed by heat, often due to dyspepsia; anæmia; renal disease; disease of facial bones; organic disease of the brain; disease of the teeth; malaria.

Hemicrania.—Headache affecting one side of brain and forehead—a true neuralgia, caused by dynamic disturbance of the fifth pair of nerves. The symptoms are variable, according to the location of the irritation, whether it is in the peripheral or central branch of the nerve. Irritation of the viscera is very prone to cause irritation of the fifth pair.

The attacks are periodical, a boring pain felt near the sagittal

suture; or it occupies one side of the head, the forehead, the supra-orbital and temporal region extending to the orbits. The paroxysms often so severe as to cause nausea, vomiting. The patient is very sensitive to light, noise, or a change of temperature.

The causes are, nervous, irritable, or hysteric constitution, sedentary labor, indigestion, dormant liver, menstrual derangements.

Sciatica.—Acute pain following the course of the great sciatic nerve. It extends from the sciatic notch down the posterior part of the thigh to the popliteal space, and often along the nerves of the leg and foot. It may be due to pressure of intestinal accumulations, uterine tumors, but rheumatism, or gout, or syphilis, the most frequent cause.

TREATMENT.—The treatment of neuralgia is quite extensive, and involves a large list of specific remedies. The first point is the removal of the cause, let it be a decayed tooth, an irritable ulcer, or any source of irritation, rectify the stomach, the liver, the kidneys and skin, by proper remedies. Give a nourishing diet, warm clothing, flannel next the skin, daily baths, friction to the surface, &c., &c.

In neuralgia we require the primary action of remedies.

Aconite is a specific remedy for neuralgia, especially of the fifth pair—where there is erethism of the vascular system, flushes of heat, congestion of the head.

Belladonna is well adapted to cases of neuralgia of the maxillary branches of the fifth pair, and portio dura of the seventh pair, and if it does not promptly yield, alternate with *aconite*.

Coffee is well adapted to the nervous temperament, having a certain physiological action which no other drug possesses.

Lobelia, if the pain is agonizing, accompanied with gastric disturbance.

Rhus tox is valuable, if the pain is teasing, or jerking, or if there is numbness—if it does not act promptly alternate with *conium*.

Cinchona, *prussiate ferri* and *gelsemin*, if due to malaria; these three remedies are specific.

Veratrum, if there is an excited circulation.

Colocynth is well adapted to bilious temperaments, and may be advantageously combined with *podophyllin*.

Nux vomica is best adapted to those cases, complicated with spinal irritation—where clonic spasms are frequent.

If the neuralgia has arisen from hemorrhage, *cinchona*, phosphorus, nitro-muriatic acid.

When the disease appears to be connected with scrofula, exostosis of the bones, chronic cutaneous diseases, mercury, syphilis, then our best remedies are stillingia, iodine, gold, aluvin, mineral acids.

In neuralgic attacks of the heart, or stomach, or uterus, serpentaria, hydrocyanic acid, pulsatilla.

Cannabis indica is a valuable remedy in weakened or exhausted subjects.

Iron and phosphorus are well adapted to those cases of debility.

In all cases the exciting cause must be removed. If the digestive organs are out of order the neuralgia can often be removed by correcting their unhealthy state, hydrastis, gentian, alkaline remedies to neutralize acidity.

Perhaps there is no cause so common as acidity—the presence of acid in the stomach. Hepatic and intestinal torpor are a frequent cause, and should be overcome by colocynth, podophyllin and cypripedin.

If it occurs in a rheumatic patient, iodide potass., five grains three times a day, often affords relief. If the paroxysm occurs periodically, give five grains sulphate quinine in a teaspoonful of the wine of colchicum, which, with the iodide, will usually cure, and if it resist that, put the patient at once under the influence of gelsemin.

Anæmic patients are benefited by a tonic course, iron, glycerine, phosphorus, strychnine. Give nervous patients valerian, ammonia.

Subcutaneous injections are of great value, atropia or morphia in solution being injected into the subcutaneous tissue over the painful spot; this is often attended with excellent results, and is the only local mode of treatment justifiable.

Local applications can do no permanent good in cases where the pain results from organic change, or from general constitutional causes—probably the best local agent is the following: *R.*—Aconite tincture, belladonna tincture, chloroform, equal parts, kept applied over the affected part—or an ointment aconitina, grs. ii, to a drachm of lard, covering over with oiled silk to prevent evaporation.

Neuralgia is purely a nervous affection, and is often influenced in susceptible patients by means calculated to make a strong impression on the mind of the patient; and hence it is that galvanic rings, electric chains, mesmeric passes, homœopathic globules and other applications which, like these, act more on the mind than upon the body of the patient, occasionally benefit, and sometimes cure.

Sciatica almost invariably depends upon a rheumatic, malarial, syphilitic, or constipated condition. This nerve is very frequently attacked; it is the largest nerve in the body, formed by a union of the sacral nerves, and covered by a strong fibrous sheath. It supplies motion and sensation to the lower limb, and is more liable to be influenced by cold or damp than any nerve of the body, on account of its superficial character.

In sciatica we have generally effusion, and this gives rise to numbness, and in order to cure we must promote absorption of that effusion. Iodide potass. has a very peculiar restorative action on the vitality of the white fibrous tissues surrounding nerves, more especially when injured by the poison of rheumatism or malarial. Acupuncturation along the nerve is highly advantageous.

The pain in all cases of sciatica should be relieved by hypodermic injections of morphia until other remedies are brought to bear on the disease.

NIGHT SWEATS.—A very valuable prescription for night sweats is the following:

R_y.—Aromatic sulphuric acid, dil., ℥i;
Sulphate quinine, grs. xxx.—*M*.

Dose.—Twenty drops thrice daily in water.

If it fails, add tannin instead of quinine. The activity with which tannin suppresses sweating is remarkable.

NIGHT SWEATS.—We have found the following excellent in night sweats:

R_y.—Glycerine, ℥iv;
Phosphoric acid, dil., ℥i;
Tinct. nux vom., ℥ii.—*M*.

A teaspoonful every four hours, and alternate with:

R_y.—Aromatic sulphuric acid, ℥i;
Quinine, grs. xxx.—*M*.

Twenty drops in a glass of water.

NEURITIS.—Inflammation of a nerve is due to an injury of some nervous branch or twig. It is indicated by intense and continuous pain along the trunk of a nerve, or its branches; great irritability and fever, especially at night—all which symptoms occur in paroxysms.

In treatment we must rely upon gelsemin and aconite, sufficient to control the pain and exacerbations; alternate these with colchicum and quinine. Locally—R_y. Tinctures belladonna, aconite, gelsemin and chloroform, equal parts, and apply.

OBESITY.—Excessive deposits of fat in a part or over the entire human body are not at all uncommon. In health, fat forms one-twentieth part of the human body, but its elaboration is promoted by a full diet, containing fatty substances, as sugar, alcoholic or malt liquors, used freely by persons whose vital forces are diminished, at the same time the appetite remains unimpaired, or is excited by stimulating drinks; the formation of chyle into blood does not take place so rapidly or so perfectly as in health; a large portion of the oily matter of the chyle is deposited in the adipose tissue, which thus becomes one of the emunctories of the system; and a material is set apart for the purpose of future absorption and nutrition, as the wants of the system may require. An excessive accumulation of fat is an early and most remarkable sign of diminution of the vital energies. Persons of that not vital temperament, the lymphatic, are prone to accumulate fat, together with high living and indolence.

Adipose persons have small arteries, they breathe imperfectly,

are dull, sleepy, and susceptible to disease. They are very liable to suffer from dyspepsia, constipation, because they have little muscular power, and incapable of taking the necessary amount of exercise. If the condition continues to increase it encroaches on every structure, and as the size of the body increases, the demand is for more blood to fill the distended weakened capillaries; and the deficient supply of that important fluid causes atrophy of important organs.

The heart, above all organs, is the most likely to become seriously affected, there are dilatations, fatty deposits, and even degeneration of the muscular fibre. The heart becomes weak, partly through degeneration; partly by imperfect æration of the blood; partly by a want of balance between the systemic and pulmonary circulation, and partly by the lungs becoming unequal to the throwing off an excessive quantity of carbon. In this way the blood becomes more venous, unfit for nutrition, extremely liable to form congestions, and to cause dilatation of the heart.

The over-accumulation of fat under the integuments and around the viscera is what constitutes obesity, and is altogether different from fatty degeneration of muscular fibre. This condition is not conducive to longevity.

The cause may be a peculiarity of temperament, or even feeding on the use of articles of food that generate fat, too much inactivity; and, of course, the rational indications of treatment would be to get rid of the cause, and then the selection of a proper diet is important. It should consist of meat, white fish, green vegetables. Avoidance, more or less complete, of butter, milk, sugar, beer, soup; a selection of articles that will give support, without creating adipose tissue.

There are some well tested remedies in the removal of this condition. A spare system of diet and drachm doses of liquor potassæ, three times a day, will effect the result very speedily, but it must not be carried on to induce debility and anæmia. It is a good rule in treatment that the diminution of weight should not exceed one pound per week, taking care of the general health, appetite and bowels. Restricting the sleep in all cases to seven hours in the twenty-four.

Vinegar, if moderately used, has the property of removing fat, or preventing its accumulation. It deteriorates the blood, and diminishes the amount of fat very rapidly, but it is liable to produce dyspeptic symptoms, cramps, colic, and produce, if persevered with, emaciation.

The various preparations of ammonia are excellent and well tested remedies for the removal of fat; the bromide of ammonia is an invaluable agent; the carbonate also acts well; and in some cases the muriate. The various salts of potash are of pre-eminent utility. Whichever remedy is adopted, it should be given cautiously colchicum, purgatives, diuretics, baths.

ŒSOPHAGEAL STRICTURE.—Difficulty of swallowing is sometimes caused by mechanical injuries, nervous irritation, foreign bodies, spasmodic constriction of the œsophagus. It is very apt to cause apoplexy. It often remains as an effect of diphtheria.

In the treatment of dysphagia we can place the greatest reliance upon belladonna, bromide potass., nux vomica, cinchona, scutellarin.

ONYCHIA.—Inflammation followed by suppuration or ulceration about the root of the nail. Injuries may bring it on, but cachectic constitutions are most liable to it. The nail may be loosened, so as to be removable; occasionally necrosis of the last phalanx of the finger or toe.

Remove the nail; then wash with strong permanganate lotion; afterward dress with sulphate morphia and permanganate potassa. Sulphite soda is excellent. Constitutional treatment is of great importance; comp. syr. stillingia and iodide potass., glycerine and phosphorus, iron, cinchona, hydrastis, nourishing diet.

ONYXIS.—In-growing toe nail, with ulceration of the soft parts. The sulphite of soda lotion is excellent, introduced on a pallet of cotton wool, so as to separate the nail from the ulcer. Scraping the centre of the nail quite thin, and applying a strip of adhesive plaster, so as to use tension from side to side of the inferior part of the toe; removal of cause. Most common among the scrofulous, so that often constitutional treatment is of importance.

OPHTHALMIA TARSI.—Inflammation of the root of the eye-lashes, along the conjunctival edge of the lids, with the formation of pustules and crusts, matting the hairs together. Almost invariably dependent upon the strumous diathesis. If allowed to progress, it causes destruction of the hair follicles, and obliteration of the lachrymal duct.

The secret of a rapid and permanent cure is in improving the general health, and changing or removing the cachectic condition upon which the disease depends. Iron, phosphorus, glycerine, hydrastis, cinchona, stillingia and iodide potass., albuin and irisin, animal food, milk, fresh air, warm clothing. Beach's ophthalmic ointment rubbed into the lids is excellent; if that fails, try the following: *Ry.*—Citrine ointment, simple cerate, aa ʒiii; iodide potass., grs. xxx; atropia gr. i.—*Mix.* Apply to the roots of the eye-lashes and edge of the lids. In cold weather glycerine should be substituted for the simple cerate. From extensive experience I can highly recommend the above prescription.

OTALGIA.—When the auditory nerve is irritated, and we have that intolerable condition known as earache, our treatment should be prompt. The causes are symptomatic or idiopathic. Under the former, we class inflammations, rheumatism, indigestion; under the latter, true neuralgia. In otalgia, the functions of the stomach, liver, uterus, teeth should be corrected, if any palpable disorder exists. An excellent plan of rapid cure is a thorough emetic of lobelia, for this remedy rouses up the whole nervous system; if it does not act well give drinks of bicarbonate of soda, afterwards a spirit vapor bath, and then an active cathartic. These should be followed with special remedies to relieve the irritability of nerve—half a teaspoonful of comp. tincture serpentaria every hour; if that fails, belladonna and aconite, given sufficiently often, so as to get their constitutional effects. In the ear the following might be dropped: glycerine, $\mathfrak{z}\text{i}$; atropia, aconitina, aa gr. i.—*Mix.* One or two drops into the ear.

OTORRHOEA.—I have found, in a long and varied practice, that there is no disease so unsuccessfully treated by all classes of physicians as otorrhœa—a purulent or muco-purulent discharge from the ear. We meet with this in young children at the period of dentition, where we have irritation, propagated from the gums to the auditory canal, so great as to create hyperæmia in the auditory canal, which is followed by effusion and discharge. If a child suffers from an attack of measles, scarlatina, nature makes an effort at elimination through the skin; the lining membrane of the auditory canal becomes congested, effusion takes place, and once that result is attained, it is very likely to become permanent. Otitis, also, from any cause, is liable to terminate in effusion, ulceration, and intractable otorrhœa. It is also often a symptom of polypos, granulations, &c. Now, the most remarkable feature of the various causes of otorrhœa is, that they are, almost invariably, identified with the scrofulous diathesis, and, if this point be observed, our treatment will always be correct and successful.

The essential element is, the improvement of the general health by every possible means, nourishing diet, animal food, milk, cream, glycerine, salt-water baths, and, as the cachexia depends upon a deteriorated vital force, coeval with the earliest period of existence, we cannot succeed without supplying the system with the elements, so that a perfect standard of health can be attained; phosphorus, iron, lime, mineral acids, iodine, vegetable alteratives.

In addition to these, local treatment is of the greatest importance, for, if we permit the discharge to accumulate, ulceration and perforation of the membrana tympani will be likely to take place. I have never succeeded with any remedy so well as with the permanganate of potassa; a lotion, in strength say from one to five grains to an ounce of tepid water, gently thrown into the meatus. If there is thickening, I have effected good cures by using the

iodide potass. in the same proportions as the permanganate, in alternation. Try this treatment. It has fulfilled all the indications that could be desired in all cases.

OVARITIS.—The ovaries are the most important part of the female organs of generation. There are two, one on each side of the uterus. They are nearly as large as the male testicle, and perform a corresponding function when the germ or ovum has been perfected in the ovary; it is thrown off and seized by the extremity of one of the fallopian tubes, through which it is conducted to the uterus.

Inflammation of the ovary may arise from irritation, sudden suppression of the menses, from cold, gonorrhœa, rheumatic, psoric or syphilitic taint, the use of caustics to the os uteri, awkward use of the uterine sound, sponge tents and other contrivances used for dilating the os.

The pain in ovaritis is variable, sometimes intense like labor pains, but more frequently dull, aching, with occasional sharp lancinating attacks, tenderness over the seat of ovary. Fever, rapid pulse, nausea, restlessness, disgust for food. It may terminate in any of the results of inflammation.

The chronic form of inflammation of the ovary is most common, and runs a tedious course, the symptoms are, tenderness at the upper part of the thighs; scanty and difficult menstruation; pain on sexual intercourse; irritability of stomach, nausea, indigestion, hysteria, irritability of bladder; tumefaction of breasts, &c., numbness of limbs.

In the treatment, warm packs, or hemlock poultice to vulva, hypogastric and inguinal regions, and the patient should be placed upon aconite and veratrum sufficient to control the excited circulation.

Subsequently, comp. syr. stillingia and iodide potass., and a general alterative course.

Ovarian dropsy.—In ovarian dropsy, the effusion takes place from the internal face of the membrane which encloses the ovarium. The swelling is first observed in the iliac region, in the form of a small elastic tumor, unattended with pain, uneasiness or constitutional disturbance. The enlargement generally progresses very slowly, extending upward toward the kidney of the affected side, then crossing the abdomen to the opposite side.

OXALURIA, or the Oxalic Acid Diathesis.—This consists of a morbid condition of the system; its most distinguishing characteristic is the persistent occurrence of crystals of oxalate of lime in the urine.

These crystals usually have the form of minute transparent octahedra, but sometimes the form of dumb-bells.

Mode of detection.—The urine, in such cases possessing a mucous cloud, should be allowed to settle for some hours in a conical glass,

till the crystals have gradually subsided, when the greater part of the fluid should be thrown away, and the drops remaining at the bottom examined with a power of not less than two hundred diameters. These crystals may occur either in acid or alkaline urine, and are insoluble in acetic acid. This form of urine is peculiar to persons suffering from dyspepsia, hypochondriasis, and liable to attacks of boils, cutaneous eruptions and neuralgia. In such cases the oxalic acid is not introduced into the system with the food, but is a product of the disintegration of the tissues, and due to the imperfect oxidation of compounds, which should have been converted into carbonic acid. Oxalic acid is composed of four equivalents of carbon and six equivalents of oxygen; but as it requires eight equivalents of oxygen to unite with four equivalents of carbon, to form carbonic acid, it requires two equivalents of oxygen to convert anhydrous oxalic acid into carbonic acid.

Now, if these two equivalents of oxygen are wanting in the system, owing to imperfect oxygenation of the blood, oxalic acid (in combination with lime) appears as a final excretion instead of carbonic acid.

The presence of oxalic acid, as a persistent sediment in the urine, is not merely a proof of an existing morbid condition of the system, but may give rise to two perfectly distinct and dangerous complications: (1,) a concretion of oxalate of lime, (mulberry calculus,) may be formed either in the kidney or the bladder; and (2,) bad consequences may arise from the poisonous action of the oxalic acid on the digestive organs, on the heart, and on the nervous system.

TREATMENT.—Care must be taken that the patient avoids all articles of diet containing oxalic acid—as sorrel, rhubarb, tomatoes, pips of apples, sugar, &c., are readily converted into it, and all drinks containing much carbonic acid; while he should take plenty of exercise in the open air, without fatiguing himself; should use the shower bath, or if he feels depressed after its application, he should, instead, daily rub the body all over with a horse-hair glove; and take as a tonic five grains of citrate of iron and quinine thrice daily. Under such treatment the oxalates generally disappear within a month.

OZAENA.—The predisposing cause of ozæna is the scrofulous diathesis; the exciting cause, inflammation of the Schneiderian membrane, which often terminates in ulceration and necrosis of the nasal bones. After an attack of inflammation, profuse, fetid mucopurulent discharge, formation of hardened mucus or pus, which, if allowed to remain in the nose, decomposes and emits an intense offensive odor. If complicated with syphilis, caries or necrosis more likely to supervene.

As the predisposing cause is scrofula, nourishing food, warm clothing, salt water baths, glycerine, iron and phosphorus, alter-

nated with comp. syr. stillingia and iodide potass., or alnuin, irisin and ampelopsin.

Various local remedies are in high repute, as bismuth, iodine, carbolic acid, sulphuric acid lotion, but none excels the permanganate potassa lotion; five grains to the ounce, injected twice a day into the nostrils, and used in the form of spray. Our next best agent is the sulphate of hydrastin, five grains to the ounce of water, the dilute sulphuric acid lotion, or sulphite of soda.

PARASITES.—Benzine has the peculiar property of destroying parasites within and on the surface of the body. It destroys all parasites more surely and positively than any other known remedy, better than the sulphuric acid lotion; it destroys all the parasites that are indigenous to the human skin.

PARALYSIS.—This consists of a partial or total loss of voluntary motion or of sensation. In some cases both are destroyed. It usually occurs without coma, loss of consciousness or derangement of the intellectual powers, unless it be an impairment of memory. Almost invariably follows apoplexy or disease of the spinal cord. Two great classes of paralytic affections are thus recognized; *perfect* paralysis, in which both motion and sensibility are affected; *imperfect*, when only one of them is lost or diminished. It may be general, when it affects the whole body, or partial, when confined to one portion—hemiplegia or paraplegia; it is termed local when a small portion of the body is affected, as the face and limb. We have also reflex paralysis, depending upon irritation, extending from the periphery to centre; wasting palsy, a prominent symptom of which is a degeneration of the muscles; lead palsy, due to the action of the poisonous metal on the muscular fibre.

Disease of the brain, as inflammation, effusion, abscess, softening, induration, tubercular or cancerous exudations, apoplexy, disease of kidneys, epilepsy, chorea, poison of syphilis; also, disease of the spinal cord, as inflammation and its results, atrophy, breach of continuity, or disease of the investing membrane of brain and cord; some lesion or compression of some particular nerve may be a cause of paralysis.

The two grand predisposing causes of palsy are exhaustion and poisoning. The exhaustion generally comes from an abuse of sexual passions, excessive mental labor, or excitement, and the poisoning is due to syphilis, mercury, lead, bad food, tobacco.

The loss of muscular power and of sensation, in all instances, bear a direct ratio to the extent and severity of the original affection and the part affected.

Reflex paralysis is common in connection with disease of the kidneys and bladder, in teething, in intestinal irritation; and the peculiar feature of this form of paralysis is, that the cause precedes the

paralysis, and that no visible alteration of the nervous centres can be detected.

The transmission of the order of the will is effected chiefly through the antero-lateral columns; and a transverse section of these always causes paralysis of the parts below. They convey the impulse of volition, not directly into the motor nerves, but to the cells of the anterior horns, which send out processes in a transverse direction to join them.

Section or disease of the posterior columns alone—the posterior roots being unaffected—causes no anæsthesia, but even the reverse, in the parts below and behind; while disease or injury of the gray matter entirely deprives the corresponding parts of sensibility, so that the conductors of sensitive impressions run to the brain in the central gray matter. The motor fibres cross over in the medulla oblongata; those in the spine make their decussation almost immediately upon their entrance into the gray matter, so that disease or injury of one-half the cord will cause paralysis of the same side of the body, but anæsthesia of the opposite side.

Hemiplegia.—Brain lesion is most invariably the cause of this affection; either an apoplectic clot, a tumor, or softening, owing to the decussation of the anterior pyramids of the medulla oblongata; lesion of one side of the brain produces paralysis of the other side.

It appears suddenly, but not always with a loss of consciousness; the patient loses the power of motion, and more or less sensation of one side. In complete cases, the parts involved are the arm and leg, the muscles of mastication and one-half the tongue. In protruding the tongue it is carried to the affected side, the palsied cheek hangs, but the eye can be opened or shut at will. The third, fifth and ninth nerves are especially apt to show implication, by a disturbance of the actions under control. Facial nerve or portio dura of seventh pair seldom involved. If the third nerve be involved, dropping of upper eyelid, dilated pupil, divergent squint; often anæsthesia. Mental faculties often deranged, tendency to shed tears, forgetfulness and misplacement of words.

Hemiplegia may be attended either by rigidity or relaxation of the muscles. If there is decided relaxation in cerebral paralysis, it is probable that white softening or atrophy, from embolism of the brain, is the lesion, with or without a clot; if there is early rigidity an apoplectic clot may be suspected. Rigidity occurring late is due to an atrophic state of the muscles. If the muscles take on atrophy, owing to a want of nutrition, the case is very hopeless; if there be flexion of fingers into palms of hands, also a very unfavorable indication. If recovery is about to take place, improvement first visible in leg; when the arm regains power before the leg, prognosis unfavorable.

TREATMENT.—If the patient is young and vigorous a most active course of treatment should be pursued, so as to diminish pressure on the brain; cupping the nape of the neck and shoulders, mustard

from the extremities to the knee, hydragogue cathartics and veratrum, to keep the pulse between 65 and 70°. Where softening is apprehended a more cautious course of treatment should be pursued. Rest, regulation of the bowels, counter-irritation with dry cups, and the irritating plaster to the upper part of the spine, with frictions with tincture of capsicum to the affected parts, are measures of utility. There are two remedies that must be carefully avoided in cerebral paralysis, and these are the different preparations of nux vomica and electricity.

In this form of paralysis, especially if it depends upon the presence of a clot or coagulum, and the patient is over forty-five, rhus radicans and the preparations of potassa are our best remedies.

In those cases where we have paralysis of the facial muscles and organs of speech, with plethora, rhus and iodide or liquor potassa meet the indications precisely.

Belladonna, stramonium, cannabis indica cause a diminution in the calibre of the vessels of the brain and spinal cord, and also diminish the reflex power of the spinal cord.

Ergot acts very nearly in the same way. Sulphur also is a valuable remedy. Iron, in the form of the pyrophosphate; phosphorus, hydrastin, good food, friction several times daily to the affected parts.

Paraplegia.—Palsy of the lower half of the body. There are two varieties; (1,) Cases where there is an increased amount of blood in the cord or its membranes; (2,) Cases where there is a diminished amount of blood in the cord, or that due to disease of spinal cord or its membranes, and that caused by peripheral irritation.

In both forms it begins slowly and insidiously with weakness and numbness, or tingling of the feet and legs, and pain in the back—then loss of sensibility and motion becomes partially or entirely lost. The muscles are either relaxed or contracted. The lesion of the spinal cord produces paralysis of bladder and sphincter ani, so that we have decomposition of urine. In some cases the involuntary movements and spasm of limbs very distressing. Decided deterioration of general health.

An important point to arrive at in paraplegia is a correct diagnosis, whether we have an increased determination of blood in the cord or the opposite condition.

Where we have an increased determination of blood, there is irritation of motor nerve fibres—as convulsions, cramps, twitching, priapism, with irritation of sensitive nerve fibres, as itching, pricking pains, abnormal sensations of cold or heat; and also an irritation of vaso-motor or nutritive fibres, as wasting of muscles, bed sores, alkaline urine, pain over the seat of inflammation, tenderness on pressure. Apply a cold wet sponge over the spine, it gives rise to a sensation of cold everywhere but over the location of the inflammation, where a feeling of heat is experienced.

These cases require to be treated by special remedies; local dry

cupping, followed by the irritating plaster, if inflammation be clearly made out by the symptoms, as pain, cramps, muscular twitchings, rigidity. Avoid nux and electricity, but give ergot freely. This remedy diminishes congestion of the cord or its membrane. Its special primitive action is on the spinal marrow. Belladonna has the property of removing congestion of the cord, given internally and applied locally. Bromide potass. is a most reliable remedy, positive in its action upon the cord and membranes in removing congestion. If the congestion has terminated in effusion, iodide potass. is one of our most powerful remedies to excite absorption. Sleep should be procured by large doses of henbane, or conium, or Indian hemp. Opium must never be used, because it increases the determination of blood to the cord. Otherwise, nutritious diet, and, above all, the nutrition of the limbs, should be promoted and maintained by shampooing with stimulating liniments. But if we have paraplegia, due to a want of blood in the cord, a want of nutrition, anæmia of the cord, as in white softening and reflex palsy, then an opposite course of treatment should be pursued; food of the most nutritious quality, so as to manufacture blood, and cause an increased quantity to be sent to the cord. The patient should lie on his back, with head and shoulders well elevated.

Probably there is no remedy so valuable as phosphorus, for the presence of this agent imparts to the nervous matter its vitality; it acts curatively, by replacing the constituent that is deficient. Nux vomica, quinine and hydrastin, are important remedies, because they increase the amount of blood in the cord, and can always be alternated with phosphorus with very decided results. Iron, in the form of pyrophosphate, is very valuable; glycerine and phosphorus, sulphur baths, vegetable tonics and diffusible stimulants, as capsicum, xanthoxyl, &c.

Electro-magnetism may be used here with advantage, for, when properly applied, and persevered with, it will aid a cure remarkably.

In some forms of paralysis a controlling power can be exercised by means of heat and cold applied to different parts of the back, over the circulation in the brain and spinal cord, and ganglia of the sympathetic, and, through the agency of these nerve centres, in any other organ. In this way reflex excitability, or excitomotor power of the cord, and contractile force of the arteries in all parts of the body, can be modified or influenced; to lessen the excitomotor power, ice, applied in the ice-bag, over that part of the spine on which we desire to act. Hot water and ice, alternately, will increase the vitality.

It must, however, be strictly borne in mind, with reference to reflex paralysis, that, while we are relieving the loss of power, the cause must be removed, whether it be worms, psoric condition, irritable gums, or excitement in any distant part.

Reflex paralysis.—In this form we find purely a morbid impression, from injury or disease, in one part of the body, transmitted

along a nerve to a nerve centre, and then overwhelming or paralyzing it.

The causes of reflex paralysis are very numerous; almost all forms of disease, as irritation of the kidney, bowels, uterus, the presence of poisons. The removal of the cause and the general treatment of an ordinary case of paralysis.

Hysterical paralysis usually depends upon some congestion or irritation of the uterus or ovaries. It is mostly of a hemiplegic character. It is best treated with tonics, good nourishment, hip baths, cold water injections, bromide of potass. in comp. syr. partridgeberry, elixir valerianate ammonia, cyripedin, scutellarin, antispasmodics.

Diphtheritic paralysis.—This is not uncommon after an attack of diphtheria. The poison that produces this terrible disease affects both the nervous system and the blood, and exercises such a deteriorating effect on the blood as to cause leucocythæmia, and on the nerve centres a like damaging effect—paralysis. Whether the immediate cause of the paralysis is the peripheral lesion of the nervous terminations, or the toxæmic influence upon the nerve centres of the poison of diphtheria, is a matter of dispute. Loss of sensibility and motion is common. It may last a few weeks, or even months, but the patient almost invariably recovers from it. It requires iron, phosphorus, nux, capsicum, rhus radicans, scutellarin, hypophosphites, passive exercise, stimulating frictions with tinct. capsicum, shampooing, change of air, sea bathing.

Syphilitic paralysis is usually diagnosed by the history of the case, symptoms of syphilis, and, in all cases, is best treated by iodide potass. in comp. syr. stillingia, gold, irisin, alnuin, and daily sulphuret potassium baths.

Mercurial palsy.—This is now comparatively rare, since the non-progressive portion of the medical profession have pretty much discarded mercury in the treatment of disease. How common it was before the liberal spirit of Beach emancipated our predecessors history can tell. At the present time we meet with it among workmen who are exposed to the fumes of mercury, glass platers, barometer makers, and among the dupes of Allopathic sectarianism. Tremor is a predominant symptom, a peculiar agitation of the voluntary muscles, increased when volition is brought to bear upon them. In bad cases, articulation, mastication and locomotion are performed with difficulty. Delirium or mania is not uncommon; use of hands almost entirely lost; debility, extreme restlessness, skin a brown, dry color, gums sore, teeth black and decayed.

Early withdrawal from the influence of the cause and the continued use of the iodide potass., with sulphur baths, nourishing food, tonics, &c.

Lead palsy.—Considerable time of exposure to the influence of lead is necessary to cause paralysis. Workers in the manufacture of white lead, plumbers, painters, type founders, are prone to

suffer. It appears frequently to exercise its paralyzing effect upon the circular muscular fibres of the intestines, producing lead colic; also upon the extensor muscles of the fore-arm, producing "wrist drop." If it lasts some weeks the muscles waste away; a blue line is observed along the gums; pain precedes the paralysis, and also the recovery from it. During the attack the muscles have their excitability, by electricity, either greatly diminished or lost.

The only true curative remedy that we possess is the iodide potass., in doses of five grains, three times daily, with sulphuret potass. bath. This acts as an eliminant of the lead accumulated in the system; vegetable tonics.

Wasting palsy.—Progressive muscular atrophy, or paralysis from a granular and fatty degeneration of muscular fibre. We may have the muscles of the whole body losing their power, and wasting away to nothing—a pure degeneration, with loss of volume, power of voluntary muscles, without any diminution of intelligence or sensibility. Insidious in its attack, it may last from a few months to some years. It is impossible to say whether the spinal cord lesion is primary or secondary; exhaustion, exposure, fever, sun-stroke, falls, hereditary tendency.

The best treatment seldom benefits. The best remedies are those that improve the digestive apparatus; phosphorus, hypophosphites, soda, lime, sulphur baths, friction to the affected parts, local faradisation to the affected muscles, and the general treatment of paralysis.

Progressive locomotor ataxy.—A peculiar form of paraplegia, produced by sexual excesses, exhaustion, rheumatism, gout; common in males about the middle period of life. The lesion present in well marked cases is atrophy and disintegration of the nerve fibres of the posterior columns of the spinal cord; also, degeneration of the cerebral nerves, of the spinal nerves, and various lesions of the gray substance of the cord.

The distinctive attributes of this form of paralysis is the total absence of coördinating power; the sensibility of the feet becomes blunted, so that the patient loses his balance, and has an uncertain, tottering gait. If the patient shuts his eyes, he falls down, and, if with them open, reels as if drunk; mind unaffected. In some cases there may be more or less paralysis of the second, third, fifth, sixth, seventh, and some portions of the eighth cerebral nerves; hearing usually good, difficulty in swallowing, strabismus, double vision, sometimes incontinence of urine, a sensation as if there was a rope tied around the abdomen, a sensation as if there were pins and needles, with numbness in the lower extremities; progress of the disease slow, from six months to ten or twenty years.

Treatment is very unsatisfactory, but, to hold the disease in abeyance, give nourishing diet, animal food, eggs, brandy and milk, phosphorus, iron, nux vom., valerian.

PARAPHIMOSIS.—This condition, where we have a tight prepuce drawn back over the glans penis, the latter becomes constricted and swollen, so that the prepuce cannot be replaced, but forms a thick and rigid cord around the congested glans, causing pain, inflammation, anxiety.

The margin of the prepuce, in some respects, resembles a sphincter muscle. Belladonna has a special paralyzing effect upon the sphincter muscles. It can be used here with most salutary results. Belladonna, in the form of resinous extract, rubbed up in glycerine to the consistency of thick cream, and the parts encased in it. At the same time give gelsemin enough to cause profound relaxation. If that fail, take a ribbon one inch wide, and compress the glans, as follows: one turn round the glans penis, the ends round each ring finger, leaving the index fingers free; then use compression; at the same time draw the prepuce steadily forward over it. After a fair trial of from fifteen to twenty minutes, and no success, then a division of the preputial collar should be performed.

PAROTITIS.—A specific contagious inflammation of the parotid gland, which lasts but a few days. It is ushered in with a chill, then febrile disturbance, pain in back and limbs, tumefaction and soreness of one or both parotid regions. It seldom exceeds a week in duration, reaching its height in four days, and subsiding in three more.

We often have a metastasis of mumps to the mammae, or testicle, or brain. There is seldom danger, and treatment simple. Open the bowels with citrate magnesia, warm alkaline bath, put the patient to bed, and put him upon aconite and belladonna, and alternate with comp. tinct. serpentaria, free diaphoresis; tepid water or poultice to throat.

PEDICULI.—These are easily destroyed by the following: take lobelia leaves, cover with lard, boil for half an hour, strain and allow it to cool, and apply.

PELVIC CELLULITIS.—I have met in practice several cases of inflammation of the cellular tissue of the abdomen, occurring in connection with lingering labor at full term in patients of the strumous diathesis.

They all come on very insidiously, with fever, headache, restlessness, with local pain and throbbing, aching pain in the limbs, difficult micturition, nausea, vomiting, painful swelling detected at the lower part of abdomen.

At this point I have rarely failed to abort the morbid condition by giving veratrum sufficient to control the circulation, unlocking the secretions and keeping the following constantly applied over the part by means of a compress, and covering over with oiled silk:

R_y.—Water, Oi; muriate ammonia, ℥ii; nitrate potassa, ℥i; tinct. iodine; tinct. belladonna, āā ℥ii.—*M*.

If, however, the morbid action goes on to suppuration, all the symptoms become aggravated, rigors, severe throbbing and tenderness, neuralgic pains down the thighs, fluctuation. I have found the following excellent, pulverised lobelia, belladonna and elm, equal parts, made into a poultice and changed frequently, giving tonics and best of nourishment.

PELVIC HEMATOCELE.—This consists of an effusion of blood into the peritoneal pouch between the uterus and rectum, or into the subperitoneal tissue behind and around the uterus. I have met with a number of cases of this. In some, death would take place in a few hours from sheer exhaustion or internal hemorrhage. In other cases the nervous shock is so severe, vomiting so intense, prostration so perfect, that recovery was tedious; in others, mere chilliness, feebleness of circulation and ghastly appearance of countenance.

The remedies from which most satisfactory results are obtained are those that increase the fibrine in the blood and tone the muscular tissue. Ergot is invaluable, on account of its two-fold property of promoting uterine contraction and creating coagulation. The persulphate of iron is efficacious; also, gallic acid, the mineral acids, carbolic acid, &c., remedies calculated to fibrinize or coagulate the blood; perfect rest in the recumbent position, an avoidance of stimulants.

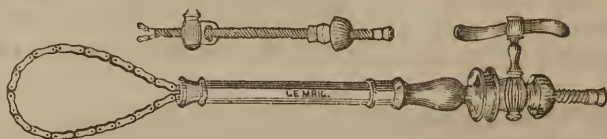
PEMPHIGUS.—A non-contagious skin disease, characterized by large round or oval vesicles, two or three inches in diameter, filled with serum of an alkaline character. After the vesicles mature, they burst or dry away, leaving thin brown scabs. Ulceration may occur if the constitution is depraved. Its ordinary duration is about three weeks.

The cause is a depraved condition of the blood, from want or privation.

The successful treatment consists in well-regulated secretions, and then tonics, with the best of diet; iron, phosphorus and glycerine, hydrastin and iron, permanganate potassa, nitro-muriatic acid. Locally, the vesicles may be punctured, but the cuticle should not be removed. The best application is, R_y.—Water, Oi; bicarbonate soda, ℥i.—*M*.

PENIS CANCER.—Carcinoma of the penis usually commences in an epithelial form on the inner surface of the prepuce, and, after an indefinite period of time, destructive ulceration takes place. From an extensive experience in the treatment of this disease, at this particular part, we are fully aware of the non-utility of caustics; for, if we use them, irritation is at once propagated to

the adjacent glands, and a terrible condition of things established. We rely chiefly upon constitutional treatment almost exclusively, giving those invaluable alteratives, gold, stillingia, irisin, tag alder, frostwort, nitro-muriatic acid baths, best of diet, and early and complete amputation of the penis by the ecraseur. Nothing can



excel this instrument for the removal of a cancerous penis. Neatly adjust the chain over the organ above the site of disease, and gradually tighten, taking about twenty minutes to penetrate. This obviates the necessity of any ligatures, and the parts heal kindly by first intention. During the operation the patient should be thoroughly under the influence of an anæsthetic.

PERICARDITIS.—Inflammation of the external fibro-scarious covering of the heart, being a local manifestation of a constitutional disease.

Fever, pain at and radiating from the heart; tenderness on pressure in the cardiac region; accelerated, irregular or oppressed, rapid and feeble pulse; anxiety or delirium; nausea and vomiting in some cases; short, hacking cough; and, toward the close, coldness and pallor or lividity, œdema of the face and extremities, loss of pulse. There are usually three stages, acute inflammation, adhesion and effusion.

The physical signs of pericarditis are all-important; in the early stage, before adhesion or effusion, exaggeration of the heart's impulse, sensation of friction communicated to the hand; regular friction sound, the same as the rubbing of two pieces of brown paper against each other; if effusion has taken place, extension of dullness over the heart, with a muffling of the heart's sounds. Friction sounds are attended or preceded by valvular murmurs; they disappear when effusion takes place.

Pericarditis can seldom be mistaken for either pleurisy or endocarditis. It is true the friction sounds occur in both, but they are nearer to the ear when the pericardium is affected. They are more limited, also, not passing along the vessels; they do not keep time with the cardiac sounds. The friction sounds of pleurisy are more diffused, and are single; not double, and the dullness extends further over and around the side.

TREATMENT.—This should be energetic; a compound podophyllin pill, followed by citrate of magnesia, to act freely on the bowels; then put the patient to bed, enjoining the most perfect rest; keep the temperature of the room at 70°; then give the patient the following every hour, until relief is experienced:

R_y.—Tinct. digitalis, gtt. iii;
Bitartrate potassa, grs. x;
Nitrate potassa, grs. ii.

Mix and dissolve in water.

Over the region of the heart apply a belladonna poultice; give some preparation of potassa as a drink, bicarbonate, or bitartrate, or chlorate. A vapor bath is always attended with good results. Sleep should be induced with compound tinct. serpentaria. Mustard might be applied to the limbs.

If effusion has taken place, the usual treatment consists in the use of tonics, diuretics, mild hydragogue cathartics, as iodide potass., quercn of the meadow, saline diuretics. We often meet with cases of pericarditis where the skin is cold, blue, pulse feeble, irregular, and where the above treatment would not be applicable, where aconite, quinine, ammonia, xanthoxylin, are the proper remedies. Veratrum, in all inflammatory conditions of the heart, is a remedy of the greatest value, and positive in its action.

In pericarditis, due to rheumatism, lactic acid in the blood, a good safeguard is an exhibition of the various anti-rheumatic remedies, alkalies, eliminatives, &c., for some time after recovery.

PERINEO FISTULA.—When the contraction of the urethra is so great from stricture and other causes as to cause considerable obstruction to the flow of urine, this fluid is forced by the frequent and violent efforts at expulsion into the parts back of the stricture, in such a manner as to form a sort of pouch or dilatation, which, from continuous distension, ultimately ulcerates, and an opening externally is formed through which the urine dribbles. The walls of this opening become lined with a false membrane, which forms a secreting surface, and is incapable of uniting.

This fistula can, in every case, be cured without the aid of the knife. The first point to attain is to place an ordinary sized catheter through the stricture or contraction into the bladder. Then destroy the walls of the fistulous back with caustic potassa thoroughly. Retain the catheter in the bladder for ten days; allow the canal of the urethra to suppurate on the instrument; then we have the urethra moulded on the instrument, and perfect obliteration of the fistula.

PERIOSTITIS.—Inflammation of the periosteum may result from injury, syphilis, mercury, rheumatism and scrofula. Sharp lancinating pain, deep-seated, aggravated at night, great tenderness on pressure, thickening of the inflamed part from effusion of plastic lymph, which forms a tense elongated swelling, called a node. The constitution sympathizes, extreme restlessness, mental depression, rigors indicated, suppuration.

The constitutional treatment should be directed to the cause; if from an *injury*, perfect rest and the affected part packed with tinct.

arnica and marigold; if from *syphilis*, comp. syr. stillingia, iodide potass., irisin, alnuin, gold, nitro-muriatic acid, sulphur baths; if from *mercury*, iodide potass. and sulphuret potassium baths; if from *rheumatism*, alkalies, diuretics, diaphoretics, colchicum and quinine, macrotys; if from *scrofula*, glycerine and phosphorus, alnuin, irisin, rumin, sassafras. Locally, the most active form of counter-irritation, the acupuncturator applied over the seat of inflammation, followed with a steaming of bitter herbs; then pack the part up in a saturated tincture of lobelia, covering over with oiled silk. In all cases give anodynes to subdue pain. If pus is suspected, early and free incisions down to the inflamed part, and even this proceeding is beneficial in severe cases, as it relieves periosteal tension, if excessive.

The syphilitic, mercurial and strumous forms of periostitis admit of the best diet, tonics, alteratives.

PERITONITIS.—Inflammation of the peritoneum is one of the most important affections that can attack the human body.

There are several varieties, idiopathic, traumatic, tubercular, puerperal. The causes are, exposure to wet, injuries, the puerperal condition.

It possesses true characteristic symptoms; extreme tenderness over the abdomen, increased by pressure or movement, great febrile excitement, pain radiating over the entire abdomen; patient lies on his back with knees drawn up; abdomen tense, hot and lymphatic; the tongue is thickly coated with a brown fur; nausea, vomiting, constipation; burning skin; rapid, small wiry pulse, hurried respirations, hiccough. The features are pinched, nostrils dilated, eyes sunken. In some cases the tympanitis gives way to enlargement of the abdomen from effusion of serum. If a fatal termination is about to occur, the abdomen becomes distended, the pulse thready, the countenance ghastly, cold clammy sweats, exhaustion and death.

TREATMENT.—No disease requires more active treatment than acute peritonitis; veratrum and opium are our only remedies. My plan of treatment is as follows: I give five-drop doses of veratrum in half a teaspoonful of comp. tincture of serpentaria every half hour, until the pulse reaches 70°, then doses sufficiently often to hold it there. Of all medicines opium is invaluable, and it should be given freely until all pain has subsided. I almost invariably depend upon the following prescription:

℞.—Opii pulv., grs. x;
Dover's powder, grs. xxx;
Nitrate potass., ʒi.—ℳ.

Make twenty powders. Give one every half hour or hour, according to the urgency of the symptoms. Before relaxing the frequency of the administration, the pain and urgent symptoms should be thoroughly subdued. Over the abdomen a poultice of

flaxseed, large, to cover all, light, so that it does not fatigue, and kept covered over with oiled silk, and changed frequently.

Keep the patient perfectly quiet, in the recumbent position. No agitation of the bowels is admissible, unless it be at the start, and there exists fecal accumulations in colon or rectum; enemata of soap and water answers well.

If there is vomiting, persistent in its character, never give over a tablespoonful of anything at a time, and that might consist of lime-water and milk. Milk is the best diet, but if exhaustion sets in, brandy and milk, carbonate of ammonia, brandy and egg mixture, essence of beef, most perfect quiet, pure air, and some arrangement to keep the bed clothes from the abdomen.

PHARYNGITIS.—In inflammation of the pharynx, attended with great difficulty of swallowing, I have found the following very efficacious: *R.*—Water, Oss; chlorate potassa, \mathfrak{z} iii; sulphite soda, \mathfrak{z} ii; permanganate potassa, \mathfrak{z} i.—*Mix.* A teaspoonful every hour.

PHIMOSIS.—A preternatural constriction of the foreskin, preventing its being drawn back over the glans penis. It may be congenital, or brought on by disease; if the former, it must be remedied by operation; if the latter, it can be cured by the local application of belladonna and lobelia, unless there be a chancre, then nothing will answer but slitting up the prepuce, on the dorsal aspect, as far as the corona.

PHLEBITIS.—Since bleeding has been discarded by the medical profession, inflammation of veins has been comparatively rare. When met with now it invariably depends upon some morbid state of the blood, either in the system, or by a wound or abrasion. If it is due to a morbid state of the blood, it affects the entire system; if the poison has reached the system by a breach of surface, there is pain, swelling, stiffness and redness, running in the course of the vessels.

To whatever cause it may be due, the sulphite of soda is an invaluable remedy, giving enough of it to keep the bowels in a soluble condition. The bromide of ammonia is a remarkable solvent where there is a fibrinous condition of the blood; chlorate or permanganate potassa, chlorate quinine, essence of beef, eggs, cream, perfect repose. Locally, I have found no remedy superior to creosote, painted along the tract of the cordy veins, until the parts are perfectly bleached; follow this with flaxseed poultice. No remedies exercise any effect upon the coagula, which forms within the affected veins, like creosote; try it, it hastens the metamorphoses through which these coagula pass.

PHLEGMASIA DOLENS.—This is frequently met with in from one to five weeks after labor. It is usually ushered in with headache; fever; thirst; nausea; pain. In some cases, where the habit is adipose, chills or rigors are the premonitory symptoms. Swelling and loss of motion in the affected extremity—the affected member is hot; tender; swollen to twice its natural size; of a pale white color; tense and elastic; having a glazed or shining appearance, and, after the subsidence of acute symptoms, the limb may remain enlarged for weeks or months.

Milk-leg is a brawny, non-œdematous, painful swelling of one or both lower extremities, attended with prostration. It depends upon the same cause as embolism, a spontaneous coagulation of blood, due to some poisonous or acrimonious fluid entering the veins, as well as that peculiar cachectic condition where the blood has a tendency to become clotty. Coagulation takes place within the internal or external iliac and femoral veins and their branches, the veins take on inflammation, and, as a consequence, there is an immense amount of coagulated blood in the limb. The walls of the vessels become distended to their utmost capacity, and are only permeated by the thinner portion of the blood—the serum penetrates in every direction, thus producing enlargement of the limb by the accumulation of the blood and its watery constituents, which is enormously distended, and is hard and shining. The lymphatics are also involved; they become obstructed.

In the treatment of phlegmasia dolens, a condition which depends essentially upon a toxæmic state of the blood, the first and most important indication of general treatment is, depuration of the blood, by exciting the various organs of elimination to increased activity, by their appropriate stimulus. An emetic of lobelia rouses up the whole system, arterial, venous and nervous; podophyllum in small doses, combined with bitartrate potassa, is a sovereign remedy to excite the whole glandular system. Small and repeated doses do not debilitate. The alkaline salts are safe, valuable and efficient remedies.

Ammonia, the various preparations of potassa, soda, &c., should have the preference in treatment.

These remedies exercise a salutary effect on the fibrinous condition of the blood.

If there is an excited circulation, aconite, veratrum, and nitrate potassa, keeping the bowels free. Sponge every three hours with alkaline wash. Food should consist of milk, farinaceous substances.

The affected limb should be sponged every few hours with an alkaline solution, friction should be freely used and the limbs bathed with spirits ammonia, and then bandaged from the great toe to the groin.

Hydrochloric acid, cinchona, hydrastin, are valuable. In both the acute and chronic stage, the comp. tincture of serpentaria is very valuable.

Balsam copaiba, fifteen to thirty drops on sugar, twice daily, often acts like a charm, otherwise the case should be treated upon general principles. For friction, alkaline liniments should have the preference. A cure should be established upon alteratives and tonics. A change of abode, a complete change in every particular, so as to promote absorption of the coagulate fibrin.

Great patience and good selection of remedies are essential to success.

PHOSPHATIC DIATHESIS.—This is a condition in which there is a tendency in the urine to deposit *white gravel*, or in which the urine is deficient in acidity, but possessing the alkaline property to excess. Alkalescence of the urine may occur from two distinct causes, viz: (1.) From the presence of the carbonate of a fixed alkali, (potash or soda,) or of alkaline phosphate of soda; or, (2.) From the presence of the carbonate of the volatile alkali, ammonia, which is due to the decomposition of urea.

The white gravel, which is deposited in the second of these conditions, is formed as follows: healthy urine contains phosphate of magnesia in a state of solution. If, however, the urine becomes alkaline from the decomposition of the urea, a portion of the ammonia combines with the phosphate of magnesia, and forms the triple salt, which is insoluble in the urine, which has now become alkaline.

This triple phosphate is usually an admixture of phosphate of lime. By allowing urine of this kind to settle for some time, an iridescent film or follicle forms upon its surface, which, when examined under the microscope, is found to consist mainly of the salts we have described. But, less frequently, the urine may become alkaline from the presence of the carbonate of potash or soda, and then, no ammonia being present, instead of the triple salt, there is a deposition of amorphous phosphate of lime. In these cases, the urine is alkaline, pale, copious, slightly turbid, of low specific gravity, and of a peculiar odor. This urine makes reddened litmus paper blue *permanently*; whereas, ammoniacal urine causes only a temporary change in the color of the same test paper. These deposits generally occur in sallow, languid, unhealthy-looking persons, whose vital energies have been depressed by mental anxiety, insufficient food, or by sexual excesses.

Treatment.—Generous diet and tonics, such as bark, wine, and the mineral acids, given before meals, are of great service; also opium, if judiciously administered. In the ammoniacal form, add small doses of benzoic acid, and the frequent washing out of the bladder with tepid injections, to the general treatment.

PHTHISIS.—A diseased condition of the blood, dependent upon an impairment of the brain or nervous system. If the nerve centres are feeble, we have an impaired or degenerated condition

of the blood, because that system entirely controls organic life and the elaboration of that fluid. An exhausted nervous system causes the manufacture of a large amount of white or albuminous blood, which, if any irritation exists in any part of the body, is liable to be effused, and, once thrown out, its watery portions are absorbed, and its more solid constituents aggregate together and form tubercle.

This condition may be hereditary or acquired. If it does exist, we are liable to have it effused on the brain, if there is irritation there; in the lymphatics, if they are irritated; in the mesenteric glands, if there be excitement there; in the lungs, if we have a determination of blood there; some inherent weakness of the structure of a part, and something that will cause an excess of blood there, so that the albuminous product be thrown out; hence, the frequency of exudation in the left lung, from the presence of the heart on that side. By preference, this effusion takes place, in nearly every case, on the apex of the lungs, and it is remarkable that, so long as this tubercular effusion is taking place, the temperature of the body reaches 105°.

Pulmonary consumption is usually ushered in with a general derangement of the system, capricious appetite, furred tongue, acidity of the stomach, and a variety of dyspeptic symptoms, which evidently depend upon a want of nervous supply.

The properties of the blood are dependent upon perfect digestion, and if this is not attainable, a still worse condition is brought about.

The cause of phthisis is an impaired vital force, either hereditary or created by a vitiated atmosphere, changeable climate, unhealthy occupations, absence of light, want of food. When once imprinted on the human organism, impoverishment of the blood, exudation into the lung, albuminous at first, tubercular afterward, and, owing to the softening of those tubercular patches, ulceration and destruction of the lung.

No period of life is exempt from this terrible scourge, and to cure it there are four points that must be embraced in a truly curative treatment; we must improve the centre of life, the brain and nervous system, establish a healthy condition of economy, subdue local irritation, and avoid everything that will deteriorate.

The symptoms of phthisis are, debility, loss of appetite, dyspeptic symptoms, cough, hæmoptysis, expectoration, accelerated pulse, fever, difficulty of breathing, loss of flesh, sweating, diarrhœa, weakness of voice or hoarseness, dull, aching pain under clavicles.

Cough and expectoration at first is dry and hacking, but, when the tubercle softens, it becomes moist and more prolonged; if there is an excavation, it is hollow, reverberating. The cough is spasmodic, brought on by exciting the branches of the pneumogastric nerves, and causing reflex movements in the bronchial tubes. The expectoration of a dry cough is first scanty and muco-purulent, and subse-

quently copious and purulent. When it occurs in round, viscid masses, it is brought up from pulmonary excavations. An excellent mode of examination by the microscope, for the purpose of detecting lung tissue, is as follows: liquefy the sputa by boiling them with a solution of soda, and then place them in a conical glass; any elastic tissue present then sinks to the bottom, and can be picked out for examination. Extremely minute portions may be detected in this way. Improved nutrition is the best mode of arresting the cough.

The loss of appetite is a most important symptom, because it interferes, more than any other, with the nutritive process, and any acidity should be rectified, for, if it remains, it exercises a most deleterious effect on the elaboration of the blood.

Nausea and vomiting are occasioned by the propagation of reflex actions of the par vagum to the stomach.

The diarrhœa is often due to the deposit of tubercle and ulceration of the intestinal gland.

The hæmoptysis, in the early stages, is due to the softening of some tubercular patch over some blood-vessels; in the latter stages it is due to ulceration of a large vessel.

Sweating is but a symptom of weakness.

Febrile symptoms are very marked; pulse quick, general excitement, vascular distension, resulting in exudation and absorption, nervous irritation, and increase of fibrin in the blood. This febrile condition is a well marked symptom, and, together with the rise in temperature, forms one of our most reliable points in diagnosis.

There is a continued elevation of the temperature of the body in every case where tubercular matter is thrown out, and this elevation is due to the deposition of tubercle in the organ. The temperature may be taken as a measure of the amount of the tuberculosis and tuberculation, and any fluctuation in temperature indicates corresponding fluctuation in the disease. This a most accurate mode of diagnosis, for, with the thermometer, we can often diagnose phthisis before any dullness can be detected. We can also tell, by the thermometer, the moment when the deposit has ceased or is being absorbed. A small amount of tubercle thrown out will raise the thermometer to 102° , and when an ordinary amount is being thrown out, 105° .

Debility, despondency, anxiety, emaciation, are all well marked symptoms; urine contains a large excess of chlorides and phosphates.

PHYSICAL SIGNS.—The earliest are, a sinking in under the clavicle upon the left side, with prolonged expiratory sound; defective expansion of upper and front part of the affected side; dullness on percussion, with blowing or bronchial respiration, and increased vocal resonance and vibration; dry crackling follows, with mucus or coarse crepitant râle; in a more advanced stage, great depression below the clavicle, flattening of the whole of the

affected side, retraction of intercostal spaces, gurgling, cavernous respiration.



BROWN'S SPIROMETER.

Another very excellent mode of diagnosing incipient and confirmed phthisis is, by ascertaining the vital capacity of the lungs by the spirometer, which no physician can afford to be without. Brown's spirometer, as seen in the annexed cut, is the best instrument of that kind.

STAGES.—These are, incipient phthisis, where we have merely albuminous exudation; the stage of consolidation of the lung; that of softening or excavation, and advanced or confirmed consumption.

It may be complicated with bronchitis, pleurisy, asthma, &c.

This disease is one of the most destructive of all maladies, although, under good hygiene and medical treatment, it is sometimes amenable to treatment, and the most favorable circumstance that can take place is the arrest of the local disease by removal of its constitutional cause. The cicatrization of vomicae, and the cessation of the tubercular deposition have been found to occur, and so have the cornification and calcification of unsoftened tubercle.

In the treatment of consumption, if we wish to cure at all, we must let the lungs alone, and direct all our attention to the organs of nutrition, the digestive system, in order to get the greatest possible amount of albuminous food fully digested, and applied for the purpose of building up the body, toning up the vital forces, so as to obtain a healthy cell renewal. The appetite should be our greatest care, our battle-field for a cure, and the mucous membrane of the stomach and bowels should be braced up by hydrastin, nux vomica, cinchona and phosphorus. These remedies are reliable, act quickly, and give permanent effects. An important part to observe in the treatment of all cases is to thoroughly subdue the excited heart, the febrile condition, with digitalis and aconite. If this is observed, no effusion takes place, but cicatrization is the result. Acidity is invariably the type, and a moderate use of alkalies is indicated.

Iron is a powerful ally; the increase of the hæmatin of the blood that follows its use is all-important, for we give the entire tissues of the body true life-giving medicine—red blood. Pyro-phosphate of iron give, to control the excited circulation of 90° or 100°, and also, to stimulate the absorbents, give it with a few drops of digitalis. But the patient should not be worried nor disgusted with medicines; if anything depresses, it will do harm.

Cod liver oil has had great repute in the treatment of pulmonary consumption. Now, the only property this oil has over glycerine is, that it contains a small amount of iodine and biliary matter. As a pleasant substitute, I give the following to all my phthical patients, with the greatest success:

R.—Glycerine, Oss;
 Acidum phosphoricum, dil., ℥iv;
 Tinct. iodine, ℥i.—M.

A tablespoonful twice daily, and six grains of fresh ox-gall at bedtime. It is an excellent base for molecular growth—a life-giving element, so that, under its influence, the whole body becomes regenerated; the abraded lungs heal up; the debilitating discharges cease; the pulse slower, firmer; the skin more natural.

Alcohol in some is useful, in most cases preventing metamorphoses, given in small quantities, not enough to produce excitement. Really, to do good, the stimulant should not quicken the pulse, flush the face, or be felt in the head. We must remember that, under its use, renewal of tissue goes on slower. When given, let it be in milk.

If the repugnance to eating be extreme, milk diet is highly advantageous, and, if the milk does not agree well, give it with lime-water or phosphate of soda. Beef tea, or essence of beef, is very useful when digestion is weak, and should be given in every case where it agrees with the patient. A most excellent plan is to combine the white of egg, brandy and beef essence.

The phosphates and hypo-phosphates of lime, soda and iron, have been well tested, but do not even yield us the good results of phosphorus. There is, probably, no better remedy in the whole range of medicine so well adapted to phthisis as phosphorus.

Hygiene is of the greatest importance, nearly as great as the improvement of nutrition; a fresh and abundant supply of pure air; daily exercise, but never to fatigue; an equable temperature; warm clothing, as flannel next the skin, so as to equalize and keep up the temperature, and prevent sudden changes; the greater portion of the time should be spent in the open air; cleanliness is highly important; daily sponging with salt water, friction to the surface with a flesh-brush; change of air and scene. Special symptoms should be promptly met with properly selected remedies.

If there be hæmoptysis—Gallic acid, perchloride of iron, chloride sodium, lycopin, erigeron.

To relieve cough—Give senega, scillæ, ipecac., tolu and narceine.

If there is palpitation—Aconite, cactus, digitalis, hydrocyanic acid.

To check night sweats—Give aromatic sulphuric acid and quinine, crawley, or the following powder every two hours:

R_y.—Sodæ bicarb., grs. viii;
 Sulph. flor.;
 Bismuth subnit., āā gr. i.—*M*.

It is contra-indicated where there is a tendency to diarrhœa. Mineral acids.

To check diarrhœa—Neutralizing mixture and gelsemin, logwood, quinine, geranin, opii, bismuth.

To aid in the absorption of tubercular matter—Iodine, bromide potass.

To secure sleep—Give narceine.

Inhalations have been quite extensively tried, and used, in some instances, with success. Iron may be used in hæmoptysis; iodine or iodid. potass., if we desire to promote absorption; carbolic acid, if we want to arrest destruction.

The cold atomized fluids are best adapted for this disease; remedies used to suit peculiar conditions.

PURPURA.—A morbid condition of the blood and capillary vessels, leading to disintegration of the red corpuscles, with diffusion of their contents.

The blood is so diseased, as well as the capillaries, that rupture of the latter takes place. If the effusion occurs on loosely constructed surfaces, as mucous membranes, the escaped blood flows away in a fluid state. A tougher structure prevents this escape, as in the external skin, where it is effused under the cuticle in purplish spots of variable sizes. If it is effused in the brain or lungs, it may collect in masses, which may lacerate their substance or obstruct their functions.

Like all diseases of the peripheral circulating system, purpura is most common in parts most distant from the centre. It is most common in the most dependent parts, in the legs and anterior portions of the body.

It is in the assimilative system that we must look for the primary defect; then to the blood, for that is abnormal through some defect in primary assimilation. We have a degeneration of the red disks, and a consequent impairment of the vital tenacity of the capillaries, whence the effusion.

On this pathology we base our treatment, and it is one with which we have had most unbounded success. We give animal food, milk, eggs, oysters, fruit, &c., to supply the wants of the economy. To render these agents properly assimilated, we give a teaspoonful comp. tinct. cinchona, and six drops nitro-muriatic acid in water before meals.

Erigeron is a most reliable remedy; it puts a stop to the effusion by astringing the coats of the vessels. I regard the following prescription as invaluable in purpura:

R_y.—Glycerine, ℥iii;
 Tincture digitalis, ℥ii;
 Acid. phosphoricum, dil., ℥ss;
 Elixir cinchona et ferri, ℥iii.—*M.*

A teaspoonful every two or three hours.

The glycerine, iron and phosphorus, promote nutrition and assimilation, tone up the coats of the blood-vessels, and the iron increases the hæmatin in the blood; whereas the digitalis diminishes the area of the circulating system, through the function of the involuntary nerves. Under its use the arteries contract, the pulse wave is narrowed, and hemorrhage ceases, whether it be from a mucous membrane or subcutaneous tissue. Convalescence requires cinchona, hydrastin, bracing tonics, fresh air, good diet.

PITYRIASIS.—This is due to a chronic, non-contagious, squamous inflammation of the skin, attended with redness and much irritation, during which scurf or white scales are thrown off in great quantity. Dandruff may appear on any part of the surface, although the scalp is most obnoxious to it. We have found the following of utility:

R_y.—Boracis, ℥iii;
 Glycerine, ℥i;
 Aqua sambuci, ℥viii.—*Mix.*

Rub into the roots of the hair.

PLETHORA.—A general excess of blood. A superabundance of this fluid in all the organs and tissues of the body is best cured by attention to the secretions, active liver, bowels, kidneys, skin, and giving the patient a drachm of liquor potassa daily. If we desire to cause plethora, an increase of blood, mineral acids, as nitro-muriatic, with good diet, &c., will meet the indication.

Health is harmony. If there is an excess of acidity or alkalinity, there is disease, and nearly all morbid states rank under one or the other of those states.

PLEURISY.—Inflammation of the pleura runs either an acute or chronic course, being either partial, or involving the whole pleura.

It is generally ushered in with a chill, followed by fever, and an acute lancinating pain in the side, called a *stitch*. Pain aggravated by motion, as inspiration, coughing, lying on affected side, pressure. Cough harsh and short; skin dry and hot, temperature varying from 102° to 105°; cheeks flushed, pulse hard and quick, respiration increased, restlessness, anxiety, scanty and high-colored urine.

The deficient elevation of the ribs, in breathing, with friction sound, which is caused by the dry and inflamed pulmonary and costal surfaces of the pleura rubbing against each other. This friction sound is often felt on applying the hand to the affected

part. This sound is usually detected from the second to the fifth day; it ceases as resolution takes place, when the two surfaces become moist and smooth; or, when the surfaces become adherent, the exuding lymph forming membranous bands between the costal and lung pleura; or, when the surfaces become separated by effusion, when we have hydrothorax; or, when pleurisy terminates in suppuration, when we have pus accumulating in the cavity of the chest, as in empyema.

Whatever the form of the effusion may be, there will be dullness on percussion. Auscultation detects a diminished respiratory murmur. We sometimes meet with a form of latent pleurisy, with no pain, cough or dyspnoea, and effusion will take place if the powers of life are low.

Pleurisy may, in nearly all cases, be aborted in its early stage by appropriate treatment, which should consist of perfect rest in bed, an avoidance of talking, or of full inspirations, so as to prevent undue friction; a roller from the axilla to the bottom of the ribs; a linseed poultice over the seat of pain. Continuous warmth is a direct agent in our hands of vital development; it not only fosters vital growth, but makes that growth take a higher grade of life. Warmth and moisture raises and restores the part to its normal force and development. The hot poultice should be kept on till all pain is gone, until the patient can breathe freely. Before beginning special positive treatment for pleurisy, give an aperient of citrate of magnesia. Then the following every hour until the pulse has reached 70, and temperature diminished to 98°, and pain abated: *R.*—Tinct. veratrum, gelseminum, aconite, aa gtt. iii; fluid extract asclepias, *℥i.*—*Mix.*, and continue until febrile symptoms are entirely allayed. If there is great restlessness, give hyoseyamus. Tonics and good diet are indicated during convalescence.

With this simple treatment I never fail to check pleurisy in its early stages, and never have the trouble of treating its complications, which so often exist under the old mode of practice.

The leading idea in our treatment is, inflammation must be subdued; and a restorative plan of aiding nature adopted.

PNEUMONIA.—In this we have the substance of the lung in a state of inflammation. It may attack one lung, or both, or merely a lobe. It generally depends on cold or wet. The right lung is most frequently affected, and the lower lobes by preference. Its average duration is about fourteen days, the height of the attack being reached about the seventh day. It is ushered in with a rigor, or stage of depression, great difficulty of breathing, dull pain in the chest and short cough. Temperature of the body high, 104° to 105° in the axilla and increased toward evening. General arrest of the secretions; urine contains an excess of urea, but deficient in chlorides, almost disappearing as inflammation advances up to the

completion of hepatization. Expectoration commences about the third day, the sputa being composed of mucus, lymph and blood mixed together, making the rusty sputa of pneumonia. In this there is an excess of chloride of sodium; thirst, loss of appetite, prostration and delirium; pulse 140 to 150.

The height of an attack being reached by the seventh day, in favorable cases, all the symptoms subside, and the temperature diminishes; but, in unfavorable cases, the difficulty of breathing and prostration increase; the cough deepens, expectoration becomes more abundant, at last purulent. It never can be mistaken for pleurisy or phthisis; the flush on the cheeks, the dilated nostrils, the dullness on percussion, and the character of the expectoration are always characteristic.

If pneumonia be permitted to run its course, it will consist essentially of three stages.

(1.) Engorgement or congestion, where the lung is loaded with red blood or bloody serum. Auscultation reveals crepitant rhonchus; percussion; dullness about to commence.

(2.) Let effusion of this red blood take place, and we have red hepatization, in which the spongy character of the lung is lost, where it is hard, solid, condensed, and cannot be permeated by air, so that all the physical signs are absent but dullness on percussion.

(3.) Let the inflammation proceed one step further, and we have this red hepatization, peculiar to the second stage, degenerating into pus, whence the term gray hepatization, or purulent infiltration, being a breaking down of the effused matter, or a liquifying of the exudation, which, if the vital powers of the patient are strong enough, is thrown out in the form of an expectoration, hepatization subsides, air begins to re-enter the affected lung.

There can be no equivocation in the mind of an honest practitioner as to the proper treatment of this condition.

Nine cases in ten will recover with proper treatment. The patient should be put to bed, and perfect rest enjoined; the temperature of the room about 65° or 70° ; the atmosphere to be kept moist; the early administration of a purgative of citrate of magnesia; dry cupping might be employed over the affected part.

Now we come to the element of sound treatment, namely, the use of arterial sedatives. In pneumonia, a most vital organ is affected, and the inflammation, if permitted to run into its terminations, is destructive. A congested or consolidated piece of pulmonary tissue cannot perform its work; the blood is not perfectly aerated, the system is poisoned. Hence the importance of effectual treatment to check the inflammation. No remedy will do this so quickly as veratrum; it is the most active agent at our disposal, and, if boldly given till the pulse recedes to 70, saves thousands of lives. At this point the circulation should be held. No rules can be laid down on this subject, but thorough equalizing the circulation is the point to attain. Give two or three drops comp. tincture

veratrum every twenty minutes till the pulse reaches 70; till the temperature in the axilla reaches 98°; till there is a relief of the dyspnœa. The best check against excess is the condition of the pulse. The physiological action of the remedy must be obtained in a restoration of the balance of the circulation.

Over the chest, after the cupping, a large warm poultice. The action of heat and moisture on animal tissues tends to increase their vitality.

The poultice should be made of linseed meal, spread half an inch thick, on cloth the size of the chest, and should remain till another is ready to take its place.

Wine or brandy is very useful in pneumonia; the former with white of egg, the latter with milk. It should be given if the nervous system is becoming prostrate, when there is tremor, quivering of the tongue, delirium. Wine is antiseptic and anti-destructive, and will check those symptoms. Avoid all purgatives; merely open the bowels with some saline.

Quinine is a valuable remedy in pneumonia, and, in cases where great prostration exists, is pre-eminently demanded. If the pneumonia is of the asthenic type, support, as beef tea, wine, quinine, and, if there is the least tendency to diarrhœa, it must be promptly arrested.

Pneumonia attacks the lungs from two directions; that is, it begins either from the bronchial mucous membrane, whence it is termed catarrhal pneumonia; or from the pleura, whence it is called pleuro-pneumonia. Convalescence from the latter is slower than in the former.

If there is great restlessness, opium is indicated; if there is much debility, carbonate ammonia, brandy and milk, beef essence, according to the indications.

Convalescence should be established upon milk, raw eggs, animal food, iron, quinine, glycerine and phosphorus.

My treatment, then, of pneumonia, is embraced in the following: Give veratrum boldly, perseveringly, but cautiously, till the circulation is controlled.

Keep the chest enveloped in a series of hot poultices. Give food freely and frequently, in a liquid form. When the nervous system is at fault, depend upon brandy; avoid all depleting remedies.

POLYPUS.—This depends upon a peculiar constitutional dyscrasia, which renders the growth of those excrescences common in cavities lined with mucous membrane, as the nose, rectum and vagina. There are several varieties; the gelatinous is the most common, but, whatever their character, their treatment is nearly the same, and resolves itself into destruction by caustics, excision, ligation, torsion.

For gelatinous polypus of the nose, nothing can excel the snuff-

ing of pulverized *sanguinaria canadensis*; it effectually destroys it, and prevents its reproduction; if it is of a fibroid character, ligation or excision; if the pedicle is small, torsion, seizing it with the forceps, and giving it a half turn every day, effectually cuts off the circulation, and it will slough off in a few days.

The success in the treatment of polypus depends solely upon giving alterative remedies, so as to change the character of the diathesis upon which they depend.

PRIAPISM.—All remedies have peculiar and specific actions upon particular parts of the organism. Bromide potassa has the power, in primary doses, of removing congestion of the brain and spinal cord, and holding in perfect abeyance the erectile fibres of the penis; its secondary action is upon the glandular system, mammae, testis, &c.

In that terribly distressing disease, priapism, where there is constant and distressing erection, whether it arises from injury to the spine, brain, or diseased condition of the corpora cavernosa, or nervous excitement from excess, bromide potassa is the remedy, given from 10 grs. to 5i, every three hours. The action of the bromide may be aided by adding gelsemin, or camphor, or lupulin.

PYROSIS.—In dyspepsia, where there is frequent eructations of thin acid fluid, with pain at pit of stomach, heartburn, we have found the following very valuable:

R_x.—Subnitrate bismuth;
Oxalate cerium;
Sulphate hydrastin, āā gr. xxx;
Ext. nux vomica, gr. iii.—*Mix.*

Make six powders, and give one three times daily. Alternate this with a teaspoonful of the fluid extract of hydrastis.

PROSTATITIS.—*Inflammation of the prostate gland.*—This affection may be either acute or chronic, and each may occur primarily; but the chronic is often consequent upon the acute, owing to the constitution or age of the patient, complications of the disease, or to the fault of the treatment. Either of these may arise from common causes, and followed by nearly the same organic lesions.

CAUSES.—Excessive excitement of the sexual organs, masturbation; undue riding on horseback; sitting on warm or damp cushions; neglect of due evacuations of the urine or of the bowels; inflammation of the urethra, especially gonorrhœa, gleet; use of strong injections; rectal diseases, violence, &c.

Acute prostatitis.—*Symptoms of.*—Increasing pain and heat in the perineum, extending to the anus; micturition is frequent, attended with scalding and pain; evacuation from the bowels cause great uneasiness. On making an examination, *per rectum*, the prostate

is felt as a smooth, round and hard body, projecting downward on the bowel; pressure on the gland is painful.

The symptoms subside as resolution occurs; but, if the inflammation continues unchecked, it will extend to the neck of the bladder, and, with the tumefaction of the gland, give rise to retention of urine. Here, febrile symptoms are exacerbated, and delirium may ensue, followed by coma. When rigors occur, with quickened pulse, hot skin and furred tongue, especially toward night, with a sense of fullness, tension, or throbbing in the perineum, and with more frequent and increased difficulty of micturition, the existence of suppuration may be inferred. If the prostate be now examined, *per rectum*, it will not be hard and resisting, but resembling a distended bladder. A creamy and sanguineous matter may be exuded into the urethra, the rectum or bladder, and then the tumor subsides, the urethra becoming freer, the bladder emptying itself, and the symptoms abating. If the abscess opens into the urethra, the evacuation of urine is preceded or followed by a copious discharge of purulent matter by this passage. After the last drops of urine are voided, there is a stinging pain, which lasts for a few minutes, and a burning pain in the glans penis.

The prolongation of the inflammation in a chronic form, after the acute symptoms have been subdued, is frequently due to a gouty, rheumatic or scrofulous diathesis, and to the use of stimulating beverages and venereal indulgences.

More frequently it commences primarily, and the gland assumes an enlarged and indurated state, owing to the absorption of the more fluid portions of the serum and lymph deposited by inflammatory action into the cells of the connecting cellular tissue. This affection is often long neglected, owing to the gradual increase of the inconvenience, and to the symptoms being mistaken for those of internal piles, until difficulty of micturition suggests the origin of the evil. The patient has a sense of weight and bearing down, and a desire to go to stool, although the rectum is ready. Occasionally instead of retention there is incontinence of urine; or during sleep, the urine passes involuntarily. Chronic inflammation, or enlargement usually occurs in middle life or aged persons.

DIAGNOSIS.—Determined by examination *per rectum*, and by the introduction of a bougie or catheter into the urethra.

PROGNOSIS.—Acute form at an early stage of the disease, before the symptoms of suppuration have appeared, if the general health of the patient be good, the result will be favorable; but in cases where it has gone on to suppuration, the patient not unfrequently sinks, either one or several abscesses being formed, which may open into the urethra, rectum or through the fascia, cellular tissue and perineum. But the abscesses may burrow, forming fistulous passages, and cause wasting suppuration. An unfavorable issue may happen before the abscess makes for itself an exit, owing to the retention of urine produced by it, and to consequent excrementitious

plethora, causing fatal coma or apoplexy. This, however, seldom occurs when the patient receives medical aid.

The prognosis of chronic inflammation is generally unfavorable, always in advanced age and in weakened constitutions.

The best mode of managing all cases of inflammation, with its results of the prostate, is by an active course of treatment.

An emetic every other day is very useful; hip bath three times daily, and have applied to the perineum the following: *R.*—Tinct. aconite, tinct. belladonna, āā \mathfrak{z} i; benzine, \mathfrak{z} ii. Mix and apply by means of a compress. A suppository of two grains of belladonna, per rectum, at bed time. If there are febrile symptoms, gelsemin, veratrum should be given to control them. If there are no excited circulation, give: *R.*—Fluid extract colchicum, buchu, āā \mathfrak{z} ii; iodide potass., \mathfrak{z} is; bromide potass., \mathfrak{z} ss.—*Mix.* A teaspoonful every four hours for three or four weeks. Afterwards comp. syr. stillingia and bromide potass. for five or six weeks. The cure is often tedious, but perseverance and a well-directed course of special remedies will ultimately succeed. In scrofulous patients it is often necessary to keep it up for months.

PRURIGO.—A cutaneous disease, characterized by an eruption of small pimples, causing the most profound, intolerable itching, resembling the sensation like the creeping of ants. Well regulated secretions, bowels daily evacuated, kidneys well stimulated, and the skin daily attended to with baths, as the alkaline, sulphur or acid; then put the patient upon the following:

R.—Comp. syr. yellow dock, Oss;
Nitro-muriatic acid, \mathfrak{z} iii.—*Mix.*

A small tablespoonful thrice daily, alternated with a teaspoonful of fluid extract hydrastis.

PRURITUS ANI.—An intolerable itching of the anus. Old people and women towards the end of pregnancy are peculiarly liable to it. It is often associated with hemorrhoids, dyspepsia, intestinal irritation. I have found the following excellent: regulate the bowels, and throw an enema into the rectum daily. Locally, a saturated solution of sulphite soda; if that fail, a mixture of borax, morphia and glycerine; if that fail, tincture lobelia, opium and vinegar, equal parts. Cold bathing, avoidance of stimulants.

PUERPERAL MANIA.—Reflex irritation from the sacral nerves to the brain during tedious labor, or where there is a diminished pelvis, or abnormal presentation in a plethoric or very sensitive patient, is very apt to create congestion of the brain, and, as a result, mania. Congestion of the brain causes restless, insomnia, pain in head, arrest of secretions, burning dry skin, pulse full and thick, tongue thickly coated; delirium often violent, face turgid. Another

variety depends upon anæmia of the brain, and this is a sequel of hemorrhage.

The first point in treatment is to thoroughly unlock secretion.

The grand indication is to allay irritability of the brain and nervous system. If the patient can swallow, we can give tincture stramonium, lobelia and bromide potass., with most excellent results; thorough relaxation, with lobelia, stramonium and bromide, will relieve the congestion of brain, and allay spinal irritation. If the patient cannot swallow, a subcutaneous injection of half a grain of sulphate morphia; if due to hemorrhage and anæmia of the brain, support, brandy, milk and egg, capsicum and cinchona, phosphoric acid and quinine. Opium creates a turgesence of the brain, and should not be used. The use of chloroform is contra-indicated, as it invariably increases the congestion. Veratrum very valuable when due to plethora.

In cases the patient should be thoroughly controlled; convalescence established upon tonics, change of air, and scene.

PURPURA.—This affection consists of an efflorescence of small, distinct but purple specks and patches, accompanied with general debility, without much fever.

The efflorescence is caused by an extravasation of blood from the fine vessels under the cuticle.

When the petechial eruption consists of small spots, they are termed maculæ; when of a mere point, stigmata. Petechiæ occur in scorbutus, epidemic cerebro-spinal meningitis, typhus and typhoid fevers.

When unassociated with any other affection they are described as purpura simplex; but when accompanied with hemorrhage elsewhere than beneath the skin, the disease is described as purpura hemorrhagica.

This latter form presents hemorrhagic phenomena identical with those belonging to scorbutus. Extravasation in both affections is liable to occur beneath mucous and serous membranes, into serous cavities, and within the parenchyma of organs.

These two affections are, however, nosologically distinct: in purpura there is an absence of that fungus-like swelling of the gums which characterizes scorbutus; if the gums are affected it is but slightly. It is not so distinctly traceable to an insufficient supply of alimentary substances contained in vegetable food as is scorbutus. The latter affection prevails as an endemic, the former occurs in isolated cases. There is more depression of vital powers in scorbutus than in purpura; also, swelling of the muscles and stiffness of the joints seldom occur in purpura. Simple purpura, when occurring alone, is not a serious affection, but purpura hemorrhagica implies danger from the same causes as scorbutus, *i. e.*, loss of blood and extravasation into serous cavities, the brain, lungs.

SYMPTOMS.—Preceded by lassitude, faintness, pains in the limbs, accompanied with marked debility and depression of spirits; frequent and feeble pulse; heat and flushing of the surface, with perspiration. Subsequently, the patient becomes sallow and emaciated; œdematous swelling of lower extremities. The duration of the disease is very indefinite—limited to a few days, or even prolonged for years. It occurs at all ages, but especially from the period of puberty upwards.

CAUSES.—Any influence calculated to depress the vital powers, as sedentary occupations; residence in confined and crowded houses; insufficient or deleterious food; overwork, and the various causes which generally lead to an impairment of the general health.

TREATMENT.—I have succeeded most rapidly in curing purpura by the use of the mineral acids—a few drops of hydrochloric, two or three times daily, in alternation with large doses of the muriated tincture of iron. *Diet.*—Milk, eggs, animal food, to the exclusion of all vegetable acids. The action of turpentine and hydrastin is excellent. I have used the following formula:

R_y.—Glycerine, ℥iv;
Tinct. digitalis,
Acid phosphoric, dil., āā ℥ii.—*Mix.*

A teaspoonful, three times a day. The action of the digitalis, in this formula, is to diminish the area of the circulating system. Under its use the artery becomes smaller, the pulse wave is narrowed, and hemorrhage ceases.

RECTUM.—Its veins are very tortuous and numerous, and form, between the mucous membrane and the muscular coats of the intestine, quite a net-work of vessels. The hemorrhoid veins unite in forming the interior mesentric vein, which, with the superior mesentric vein, the vein from the spleen, and the gastric vein, compose, by their union, the great portal system vein, which supplies the liver with blood.

A congested condition of the entire pelvic circulation, which involves not only the rectum, but the entire digestive tube in inflammatory, spasmodic and neuralgic affections, is a predisposing cause of hemorrhoidal disease.

Hemorrhoids are the most common diseased condition of the rectum—more frequently demand attention than any other condition of the lower bowel. Any cause which operates upon the rectum in such a manner as to impair the integrity of its vascular and muscular structure, may induce the disease. Debility, then, is a frequent cause, permitting permanent dilatation, or a varicose condition of the veins of the rectum.

Hemorrhoids are met with usually as soft tumors, which form either within the rectum, or external to the anus. When within the rectum, they are covered with mucous membrane of the intestine; when situated without the rectum, they are covered with the

common integument; they are then external or internal—hard or soft—sensible or insensible.

From the intimate connection of these veins with the liver and other organs, we have great constitutional disturbance, vertigo, headache, dyspeptic symptoms, languor, lassitude, prostration, melancholy, constipation and great congestion about the rectum, pain in the bladder, perineum, thighs.

The great object in the treatment of hemorrhoids is to regulate the bowels. That should be accomplished by diet, fruit, cold water and the like.

The medicines most valuable are, *nux vomica*, if due to constipation and sedentary habits; *leptandrin* and *euonymin*, if of a bilious temperament.

Prolapsus of the Rectum.—This may be described as an extrusion of the mucous and submucous coats alone, through the expulsive power of the muscular coat of the rectum; but it is, properly speaking, an inversion of all the coats of the bowel. The protrusion and eversion of the rectum is effected by the weight and pressure of the bowels above, aided by the contraction of the abdominal muscles. In ordinary cases, when the sphincter is contracted, its strength is sufficient to resist the bearing-down forces above; but when the bowels act, the sphincter is relaxed, and the strain tells on its lateral adhesions. The rectum is provided with a strong coat of longitudinal fibres; but its power may be inadequate, or paralyzed, if constipation has prevailed for a long period of time. The most palpable causes are debility and habitual constipation, diarrhoea, dysentery, purgatives, straining from stone in the bladder. Prolapse, if neglected, is very liable to terminate in inflammation or ulceration of the part.

The leading points to be observed in treatment are the following: the tumor should be returned; anoint the protruded part with olive oil, and then apply gentle and uniform pressure. If the protruded bowel is so much inflamed that it cannot be returned, take a table-spoonful of the extracts of *belladonna* and *lobelia*, and add a teacupful of elm flour; add boiling water sufficient to make a poultice, which apply to the perineum and anus, after which we shall be most likely able to reduce.

In children affected with prolapse of the rectum, it is often advantageous to have them pass their motions in the recumbent position, so as to prevent straining. When the patient is about, a pad and T bandage should be worn. The general health should be improved by *hydrastis*, iron, glycerine, and constipation prevented by *nux vomica* and *leontodin*. Astringent enemata are very valuable, as an infusion of *hamamelis*, or the perchloride of iron in water.

If the case is bad, and resists the ordinary means of treatment, a radical cure can always be effected, as follows: thoroughly evacuate the bowels with castor oil and an enema; then place the patient upon his hands and knees, insert the ordinary anal speculum, then

take strong nitric acid and make one vertical streak; turn the speculum a little and make another; continue on, until five or six are made round the entire bowel; withdraw the speculum, put the patient to bed, and give one grain of opium every hour, so as to keep the bowels thoroughly confined for a week.

Stricture of Rectum.—Stricture of the rectum may be partial or complete—either a small portion of condensed tissue, or a complete ring encircling the bowel.

The usual symptoms are constipation; the fæces passed in small, flattened pieces; great difficulty in voiding them; flatulence; pains in the loins and sacrum; mucous discharge, stained with blood; general depression of the general health. If ulceration follows, burning pains, great tenderness about the loins, and constitutional disturbance.

The only successful treatment is mechanical dilatation with bougies; passing a small instrument smeared with belladonna ointment and iodide potass., gradually increasing the size of the instrument, and continuing treatment for some months. The bougies are best made from gutta percha; they should be used daily, or at least every other day, and retained for half an hour each time.

Spasmodic stricture is common in patients of a nervous temperament, and is best relieved with lobelia, belladonna, gelsemin, dioscorein.

Rectal Ulceration.—Ulceration of the coats of the rectum is not infrequent, especially as a consequence of acute or chronic dysentery, of diarrhœa, especially colliquative, and of tenesmus.

More frequently a complication of other maladies, as those of the lungs, liver, &c., than a primary and simple lesion; not unfrequently associated with other diseases of the rectum, with lesions of the urinary and genital organs, or with tubercular formations, especially in the lungs.

SYMPTOMS.—Tenesmus; a mixture of purulent, sanious and mucous matters in the stools; pain during the passage of the fæces, and often partial prolapsus of the inner coats of the rectum, with more or less escape of blood. If low in the rectum, it may be felt upon examination, thickening and induration of the edges, and irregularity of the surface serving to distinguish it; otherwise, its presence may be known from the history of the case, and from the character of the stools; also, from the pain under the sacrum and pubis, during evacuation of the bowels.

It occurs most frequently in women.

TREATMENT.—Avoid constipation by mild aperients, cod-liver oil, nourishing food—but no stimulants; belladonna ointment. Make a longitudinal incision through centre of ulcer and superficial fibres of sphincter ani; two grains of opium, so as to confine bowels for a few days afterwards. Good tonic treatment to improve the general health, and allow the ulcer to heal.

Rectitis, Prostatitis, Inflammation of Rectum and Anus.—Symptoms of acute rectitis: heat and pain at the anus, extending under the sacrum; frequent desire to go to stool, with straining, nothing passing away but mucus, or an exudation of lymph, like in croup; if fecal matter passes, it occasions fearful pain; considerable prolapsus, with spasmodic constriction of the sphincter. The symptomatic disturbance varies with the constriction and severity of the attack. Its various terminations—1st, in resolution; 2d, hemorrhagic exudations; 3d, in ulceration of the inner coats of the bowel; 4th, in abscess in the vicinity of the anus; 5th, in inflammation of the hemorrhoidal veins, or, in chronic inflammation.

Subacute and Chronic Rectitis.—The subacute form manifests similar symptoms to those of the acute, only they are milder and often of longer duration. Frequent in females, and then the recurrence of the catamenia is often succeed by resolution of the inflammatory action. When neglected or improperly treated, it passes into the chronic form.

Chronic Rectitis may be seated in the mucous follicles, or in the mucous surface; or, if of long duration, it may extend to the connecting cellular tissue, producing tumefaction or thickening of the parieties of the bowel. Chronic rectitis is more frequently complicated than simple; and then, it may be either the primary or secondary affection.

SYMPTOMS.—Tenesmus; aching pain under the sacrum; slight prolapsus of the inner walls of rectum, after evacuation; often by dysuria and frequent micturition; and by exudation of mucus from the anus. Terminations—1st, resolution; 2d, ulceration; 3d, fistulous ulceration; 4th, fissures of the anus; 5th, tumefaction, thickening, induration, and constriction of the coats of the rectum; and, 6th, ulceration.

TREATMENT.—Rest in horizontal position, milk and farinaceous diet; sedative enemata, saline draughts, hot hip-baths.

REMITTENT FEVER.—This is usually met with in a simple or malignant form. It is usually ushered in with great depression, with headache, nausea, furred tongue. Usually these symptoms increase, until there is a perfect rigor, which lasts an hour or so; or there may be merely an ill-defined cold stage, with a sensation of chilliness, languor, lassitude and debility, cerebral oppression and gastric disorder.

After this the fever begins. Then the skin becomes hot, dry, harsh; the pulse rises in force and frequency to 115 or 120. Face flushed, headache, throbbing and severe, the mental faculties blunted, violent pain in the back or limbs, gastric disturbance extreme, nausea, vomiting of bilious matter, constipation, almost total arrest of the urinary secretion, hurried respiration, great thirst.

These symptoms may continue from eight to twenty-four hours,

and then abate; the feelings of the patient are more comfortable, perspiration breaks out, he sleeps, but the headache and pain in the back remains, and the pulse keeps up to its high standard.

Usually in from six to twenty-four hours the patient's discomfort increases; the skin becomes hotter and parched, the pulse rises to 125, thirst is great, headache intense, tongue thickly furred with a yellowish fur, nausea, disgust for food, vomiting persistent, stools slate-colored; diarrhœa is very rare, but delirium common—yellowness of the skin in all cases. As the disease advances, the paroxysms become very various; nevertheless, the affection maintains a periodic character throughout. The remissions may occur at any hour; sometimes a double tertian type is observed.

Favorable cases terminate in six or seven days in an intermission, which may terminate in complete recovery. The more violent or badly managed cases, or where the constitution is depraved, may run some weeks, but its average duration is about fourteen days.

This form of fever is liable to complications; the brain is the organ most frequently affected; pneumonia is also another complication. Gastritis, enteritis and splenitis are also common, sometimes as complications, at other times as a sequelæ.

Patients also suffering from remittent fever are liable to pass into a typhoid state. This is usually indicated by a rise in the pulse, as well as the temperature of the body; dry, harsh skin, face flushed, delirium, bowels affected with diarrhœa or obstinately constipated; tongue 'dry-coated, with sordes, brown or black, with cracks or fissures across it; extreme prostration, often hemorrhages from bowels, lungs or stomach.

The chief cause of the complications are, neglect in treatment, powerful epidemic influence, malaria.

This fever either terminates in recovery in one or two weeks, or a complete change into an intermittent type, or in some of its complications.

The diagnosis is important; it is peculiar to certain sections, being restricted to actual geographical limits. From malignant small-pox in the early stage, the color of the conjunctiva is an excellent mark. When the typhoid state supervenes, there is a great similarity to the true typhoid fever.

The mode of attack of typhoid and bilious fever is quite different. Typhoid is insidious, and almost imperceptible at first; in bilious fever, after a few days' depression, a chill ushers in the attack—vomiting is common in the one, rare in the other; so in diarrhœa. The deafness, stupor, livid countenance, sordes on the teeth, are peculiar to typhoid. Epistaxis, bronchitis are seldom present in typhoid remittent. The yellowness of the skin, and the distinct remissions, mark well the remittent attack.

TREATMENT.—No disease has so baffled the Allopath as bilious remittent—they invariably subject a patient to every variety of experimental practice, pushed with boldness and energy, until the

patient dies. Their sole dependence has been placed upon tartar emetic, mercury and quinine, which have been proved over and over again to be worthless and destructive.

The other extreme, of trusting to nature, meets with more positive disappointment in this than in any other affection. A decided treatment in this disease is imperatively demanded.

In all patients I have seldom failed with the following treatment: An emetic of equal parts of lobelia and eupatorium, either an infusion or the fluid extract, in warm water—thorough emesis; then twenty minutes of a vapor bath, free diaphoresis; unloose the bowels with some saline, as citrate magnesia. If the vomiting is obstinate, medicine must be given in small but repeated doses; the neutralizing mixture, with leptandrin and lime water, is appropriate; sinapism over the stomach.

As soon as the emetic and cathartic have done their work, begin with drop doses of tinctures veratrum and gelsemin, every half hour, until the excitement is completely moderated, until the pulse has subsided to 72, and the headache gone; then begin with anti-periodic remedies: *R*.—Sulphate quinine; prussiate iron, aa grs. xx; leptandrin, grs. xxx; oil piper nigrum, q. s.—*Mix*. Make thirty pills; one every three hours. We would continue this treatment until all the symptoms entirely subside. The best diet in bilious fever is lime water and milk. If there is any malignancy suspected, yeast is an excellent remedy. A tablespoonful of brewer's yeast twice daily in milk. The above has been my mode of treatment for a number of years.

In slow convalescence, with sallowness and deranged digestion, the administration of nitro-muriatic acid, in six drop doses, thrice daily, proves useful. And to improve the general condition, I have found nothing to excel the following formulæ: *R*.—Hydrastin, quinine, iron by hydrogen, aa grs. xxv; extract nux vomica, grs. x.—*Mix*. Make thirty pills; give one every three hours.

RENAL DEGENERATIONS.—There are three varieties of nephritic degeneration.

1. *Fatty degeneration.*

CAUSES.—Desquamative nephritis; a strumous diathesis, irregular living, constant exposure to wet and cold; but perhaps the most common cause is intemperance, for it occurs most frequently in those addicted to the free use of alcoholic and other stimulants.

SYMPTOMS.—Generally debility, which increases with the disease; accelerated pulse, striking pallor, and sometimes puffiness of face and other parts; frequent micturition, weak stomach, and attacks of vomiting; a tendency to pericarditis, pleurisy, peritonitis and meningitis, and inflammation of serous membranes generally; anasarca of the limbs, œdema of the lungs. The retained urea may

so affect the nervous system as to cause convulsions, coma and death.

The urine presents characteristic appearances—scanty secretion, of low specific gravity, but loaded with albumen. No sediment at first; after a time it presents a cloudy sediment, containing waxy casts and oil globules.

PROGNOSIS.—Rather unfavorable where the urine presents a large number of cells and fatty globules, and is of a natural color.

2. *Amyloid degeneration.*

The amyloid, or waxy condition of the kidney, greatly impairs its functions as an excreting organ. Frequently associated with scrofula, syphilis, or diseases of bone.

SYMPTOMS.—Gradual loss of strength, excessive secretion of urine, œdema, especially of feet; liver and spleen abnormally large, urine pale, albuminous, of acid reaction, and of a low specific gravity. The disease progresses but slowly, sooner or later associated with anæmia; the quantity of urine diminished, with its proportion of albumen augmented; frequently diarrhœa, dropsy. Death may result from effusion into pleuræ or pericardium, from phthisis, convulsions, or excessive exhaustion.

3. *Cystic degeneration.*

There are four forms: 1. Small scattered cysts, which may exist on the surface, or cortical substance, without impeding the functions of the gland; 2. Cysts from the size of a pin's point to a hazel nut, which frequently are produced by an obstruction of uriniferous tubes by exudation; 3. Congenital cystic degeneration, where infants are born with large irregular-shaped kidneys, made up entirely of cysts, but destitute of secreting tissue; 4. General cystic degeneration from the dilatation of portions of the renal tubes.

One kidney only may be affected, but more frequently they are both involved.

The cysts contain a liquid, which may be limpid and nearly colorless, but sometimes of a dark color. Sometimes the contents are thick or nearly solid; occasionally they contain crystals of cholestrine; but the liquid contents of renal cysts seldom contain the constituents of the urine. The symptoms not very well marked, and generally come on gradually.

There are usually pains about the loins, hematuria and albuminaria.

The kidneys often become so large as to produce tumors. Death may either occur from uræmia, or from some complication.

These various forms of renal degeneration should be treated by an attempt to improve the general health, by regulating the secretions, by daily baths of nitro-muriatic acid, and by the administration of buchu, phosphorus, cinchona, nux vomica, mineral acids, and strict attention to the diet. Hydrastis is excellent.

RHEUMATISM.—Acidity is a fruitful source of disease; we have it present in phthisis; in the exanthemata; in diarrhœa, and a large proportion of diseases. It is acidity that causes rheumatism, and renders that disease so formidable. A superabundance of lactic acid in the blood is the true cause.

It is a primary defect in the digestive apparatus, where the starch of the food is converted into lactic acid, and is retained in the system, and often accumulates to a great extent. It has a peculiar affinity to the fibrous and serous tissues, its presence there exciting a peculiar form of inflammation which has a tendency to metastasis to tissues of a like structure; hence we sometimes meet with it flying from the joints to the pericardium or endocardium.

The presence of an excess of lactic acid in the blood creates fever, restlessness, and if the action of the poison has been brought into activity by cold or damp, we have stiffness and aching of the limbs. Then some particular joint or joints becomes implicated, pain begins in the part which gradually increases; also swelling and tenderness; constitutional disturbance extreme. The sufferings of the patient are most agonizing; pulse full, bounding and quick; skin bathed with a most disagreeable acid perspiration—intensely acid; constipation, but sometimes acid diarrhœa; tongue moist but furred; breath highly acid; urine high colored, acid, scanty, loaded with urates.

My mode of treating rheumatism has been a grand success; if there is no diarrhœa I begin as follows: give half a teaspoonful of the following, every three hours, till the bowels are freely acted on. *Rx.*—Wine of root of colchicum, ℥ii; sulph. quinine, gr. x.—*Mix.* Alternate with three drop doses tinct. veratrum with three grains of nitrate potassa and ten of bicarbonate potass., every hour, till the pulse reaches 72. For a drink, give an infusion of guaiacum and asclepias. As soon as the colchicum acts upon the bowels, leave it off, and in its place give the following:

Rx.—Fluid extract macrotys,
Fluid extract stillingia, āā, ℥iii;
Acetate potassa,
Iodide potassa, āā, ℥ss.—*Mix.*

A tablespoonful every three hours. At bedtime, give comp. tinct. serpentaria to procure sleep, or the following, repeated till sleep is induced.

Rx.—Opii pulv., gr. ss;
Dover's powder, gr. v;
Nitrate potass., gr. iii.—*Mix.*

If there is any uneasiness about the heart, give a few drops of tinct. digitalis with the veratrum.

Locally, alkalis, sponging the patient frequently with strong alkaline water, packs to the joints of a saturated solution of bicar-

bonate potassa, covering over with oiled silk, and renew every three hours. The best diet is milk and lime water.

The three points, then, of a successful treatment of acute rheumatism are as follows: 1. Give alkalis to neutralize acidity. 2. Perfectly control the circulation. 3. Positively and effectually allay pain. With the above treatment, a bad case of rheumatism can be progressing rapidly towards convalescence in a week. When a cure should be established upon tonics and alteratives, all articles that create acidity should be strictly forbidden.

If the disease is not energetically treated, or conducted along for weeks or months by a physician who ignores its true cause, we may have it running into a chronic form. In this stage, the fibrous textures around the joints, the fibrous envelopes of nerves, or the aponeurotic sheaths of the muscles, or tendons, or periosteum, are thickened, stiff and painful. The best remedy here is the following:

R_x.—Comp. syr. stillingia,
Fluid ext. iris versicolora, āā, ℥iii;
Iodide potass., ℥i.—*Mix.*

A teaspoonful every three hours. Sulphur baths are highly beneficial.

RICKETS.—Strumous children living in our large cities are very liable to this condition—a state in which the bones, as they grow, remain soft and flexible, and bend under the weight of the body. To all appearances the bony tissue looks natural in structure, but deficient in earthy salts. It generally makes its appearance when the child begins to walk, beginning at the extremities and progressing upwards; the limbs crooked, pelvic deformity, spine curved, chest narrow, with a prominent sternum, head large, forehead prominent, physiognomy peculiar, tenderness of the whole body, generally irritability of the nervous system.

Rickets yield readily to proper treatment. We have the scrofulous diathesis to overcome by everything that improves the health; fresh air, salt-water bathing, milk or beef-tea diet, glycerine, iron and phosphorus, phosphate of lime, soda and iron, hypophosphates, thorough hygiene.

RODENT ULCER.—This form of ulcer is most frequently met with in highly strumous patients about the eyelids. The ulcer has hard margins, a dry glossy surface, full of tubercles. Its tendency is to complete destruction, eating and completely destroying all the adjacent tissues; it resembles both lupus and cancer.

The only successful treatment is complete destruction with caustic potassa, followed with alkaline lotions. Improve the general health with good diet, eggs, beef, glycerine and phosphorus, iron, cinchona, iodine.

ROSEOLA.—A peculiar form of epidemic prevailed in Philadelphia in the spring of 1868. It was confined chiefly to children, and consisted of a true inflammation of the skin, characterized by transient patches of redness, of small size and irregular form, distributed over the entire body; in some cases by the formation of numerous small, separate, rose-colored spots, some febrile disturbance, but no coryza or throat affection; sometimes gastric disturbance. It terminates in about a week.

This affection is amenable to the following treatment: aconite every half hour, to induce thorough diaphoresis; sweet marjoram tea as a drink. Like measles, scarlatina and small-pox, acidity intense, sour breath, acid perspiration and urine; acidity of the secretions. This should be promptly neutralized by sponging the patient with the alkaline wash, by administering alkalies internally, as a few grains of some preparation of potassa.

RUPIA.—This is merely an advanced stage of pemphigus; with smaller blebs or bullæ, followed by thicker conical scabs, of dark color, after whose removal ulcers are left, which are intractable to heal. Three forms of rupia. When the crusts are thin and the ulcers beneath them superficial, *rupia simplex*; if the crusts are large, elevated into irregular cones, *rupia prominens*; if deep, extended and spreading, *rupia escharotica*. The syphilitic form is the most common. The loins and lower extremities most frequently the seat of the eruption.

This form of skin disease depends upon a breaking down of vital power; consequently, success in treatment is to be obtained only by toning, and nourishing the patient—improving vital power, good nourishing food, fresh air, tonics, iron, hydrastis, cinchona. phosphorus, in alternation with alteratives, as the following: R.—fluid extracts stillingia; yellow dock, iris versicolor, tag alder, aa ʒii; iodide potass., ʒi.—*Mix.* A tablespoonful thrice daily. Baths of an alkaline character, tepid, every other day. An active course of treatment should be pursued for several months.

SCABIES—Presents a variety of appearances; accordingly we are not surprised that writers have described it as papular, pustular or vesicular eruption, commonly situated between the fingers, on the wrist, near the joints, or extending over the entire body. The eruption has a constant itchy feeling, aggravated by scratching, by heat of a fire, or by bed-clothes. Decidedly contagious, and may continue for years, or for a lifetime, if treatment be neglected.

Occasioned by a parasite, an insect about one-sixth of the height of one of these letters, and its location presents a small dark point at the end of a whitish line.

This affection is usually divided into three distinct forms:

1. *Scabies sicca.*—Pimply, dry itch, occurring most frequently in

adults. When suppressed, often causes nervous apoplexy, ascites, or chronic hydrocephalus.

2. *Scabies vesicularis*.—Common itch, mostly occurring in high lands. When abruptly suppressed, dangerous affections of the cerebral and pulmonary organs often arise.

3. *Scabies purulenta*.—This form presents yellow and prominent pustules between the fingers and toes.

Causes.—The principal, if not the only cause of itch, is contagion. It is one of the most universally disseminated contagious diseases, the slightest contact of the fluid secreted by its vesicles being efficient in communicating the infection. It is witnessed in every climate, season, rank and age. Still it is more common among the poor and wretched, in persons negligent of cleanliness; in sailors, soldiers; especially those confined in jails, hulks and workhouses.

The female insect seldom quits her burrow unless at night, and, if impregnated, not then, unless disturbed by scratching. Communication is not readily caused by holding the hands of those affected, or by coming in contact with them during the day. Neither can it be communicated by inoculating with the serum of the vesicles, by the pus of the pustules, or by any principle contained in the dead body of the insect.

It has a predilection for youth and those of a tender skin, but spurns surfaces containing hair bulbs.

Treatment.—Hydriodate of potash, turpentine, benzine, bergamot and staphisagria ointment; which is made by boiling the seeds for twenty or thirty minutes in lard.

SCIATICA.—This form of neuralgia was formerly considered to include all painful affections of the hip and adjoining parts, whether inflammatory or rheumatic, primary or symptomatic—the pain being referred to the joint, muscles, bones, tendons and nerves. It was, by other authors, regarded as a variety of rheumatism; but though resembling that affection in some particulars, it is now considered to be essentially a form of neuralgia. Its name is derived from that of the sciatic nerve—the largest nerve in the body, and derived from the sacral plexus.

This affection seldom attacks infants or children; persons in advanced life are obnoxious to its distressing influence. It occurs more frequently in females than in males, especially in females during the puerperal states; and those of a nervous temperament, and rheumatic and gouty diathesis, are more liable to it than others.

The sciatic nerve being the largest in the body, it may well be inferred that the slightest interference with it is sure to induce the severest pain. The sacral plexus, from which it arises, are covered on the left side by the rectum, and on the right side are adjacent to the cæcum; from such a proximity, whatever disturbs the position of the rectum or cæcum, is almost certain to exert an irritating influence on the nerve itself. It is covered by a fibrous sheath, and

when any morbid action affects it, it is sure, by contiguity of surface, to extend to the nerve as well. But the sciatic nerve imparts motion, as well as sensation; accordingly, when its vitality becomes impaired, a loss of muscular power is the consequence. Again, when you remember that it sends branches, or filaments, to some of the pelvic viscera, including the bladder, you need not be surprised that paralysis of the bladder sometimes is an accompaniment of sciatica. Lastly, consider how it leaves the pelvis—a warm cavity—and, passing beyond the border of the pyriformis, it is situated nearer the surface of the body than any other nerve of considerable size, and you will not think it strange that it should sometimes be suddenly affected by changes of temperature. The empiric and quack may boast what cures *they can* perform, without possessing any knowledge of the structure of the exquisite machine which yet they vauntingly boast they can, however out of order, always repair; whereas, the scientific practitioner, conversant as he is with the various parts—whether viewed separately, or as a harmonious unity—like a good engineer, is always at his post, without fuss or noise, and applying his knowledge to maintain the balance of the various wonderful influences and agencies that are constantly in motion in every living being—especially seeking, on scientific principles, to restore the balance, where disease has upset it, to the normal equilibrium.

From the few points that have been named in reference to the sciatic nerve, its position and function, it can readily be seen that a knowledge of anatomy cannot be dispensed by any gentleman entitled to the name and reputation of a scientific practitioner. Seeing, as eclectics, we are in advance of the antiquated and now declining allopaths in respect to the great superiority of our remedial measures, let us be jealous lest we fall behind them in our anatomical acquirements, which department of medical knowledge forms, and must forever continue to constitute, the foundation of the temple of medicine—the very root of that tree of life whose leaves are for the healing of the nations.

But, not to digress further, let us trace the course of the sciatic nerve. Passing down through the space between the trochanter major and the tuberosity of the ischium, along the posterior aspect of the thigh, to about its lower third, where it divides into two large branches, the internal and external popliteal nerves.

Before its division, it supplies branches to the hip-joints, and *muscular* branches to the flexors of the leg. The internal popliteal (the larger terminal branch of the great sciatic) passes down the thigh and over the popliteal space, supplying the knee-joint and the calf of the leg; at the lower part of the popliteus muscle, it becomes the posterior tibial, which supplies the deep-seated muscles of the posterior aspect of the leg—the tibialis posticus, flexor longus digitorum, and flexor longus pollicis. The posterior tibial, bifurcating between the inner malleolus and the heel into external and internal

plantars, which supply the sole of the foot. Again, the external popliteal (or peroneal) descending close to the margin of the biceps muscle, to the fibula, supplies articular branches to the outer side of the knee, and cutaneous branches to supply the integument along the back part and outer sides of the leg to its middle, dividing beneath the peroneous longus muscle into anterior tibial and musculo-cutaneous. The anterior tibial passes beneath the extensor longus digitorum to the fore part of the interosseous membrane, and, passing downwards, supplies the tibialis anticus, extensor longus digitorum, and extensor proprius pollicis.

The musculo-cutaneous branch, on the other hand, supplies the muscles on the fibular side of the leg, and the integument of the dorsum of the foot.

But there is another sciatic nerve, named the lesser sciatic. It is distributed in the neighborhood of the hip, to the back of the thigh and leg, and one of its branches passes down superficially to supply the integuments of the sides and back of the bend of the knee, and as far down as the middle of the calf of the leg.

Now, if we carefully examine, we shall find that sciatica is especially located at the exact points that we would expect, judging from the course and divisions of the nerve—rather nerves—including the lesser sciatica. Our space will permit us simply to name these: about the tuberosity of the ischium; half way between the ischium and the trochanter major; in the popliteal space; at external condyle of femur; in the course of the popliteal nerve, and at its termination; two inches below the knee-joint, at outer side; outer ankle-joint and heel, and on big toe.

From the foregoing it may be observed that the course of these nerves are, for the most part, posteriorly and externally.

SYMPTOMS.—Acute pains, coming on suddenly, but may be preceded by painful pricking, or slight numbness or even chills; stabbing or darting pain, shooting along the course of the nerve like lightning; or violent, lancinating pains, occurring in paroxysms, and augmented by the least contact, and by motion, but unaccompanied with inflammation.

Usually one limb only is affected; exacerbations of it occur generally in the evening or during the night, but several may take place during the day, with remissions, during which the pain is more dull, and attended by numbness or pricking. The slightest cause may bring on the exacerbation, as motion or exertion, the heat of bed, or mental excitement. The duration of the exacerbations of pain, as well as their frequency of recurrence, is very various, as in other forms of neuralgia; the causes of the affection, the constitution of the patient, and various other circumstances, influencing it. When the attack has been very severe, or of long continuance, lameness; a dragging of the leg; great emaciation of the limb; a partially paralyzed state of the muscles; and derangement of the digestive organs ensue.

TREATMENT.—When the disease is complicated with syphilis, or the morbid condition due to the syphilitic taint, the iodide potassium is the most appropriate remedy. If associated with the gouty diathesis, iodide of potassium and vini colchici in combination.

From an extensive practice where I have very frequently met with this disease, I can confidently recommend the following as the best remedies: iodide potass. et comp. syr. stillingia, macrotin, scutellarin, bromide potass., nux vomica, belladonna, and ergot. The acupuncturator along the side and course of nerve or a subcutaneous injection, to relieve pain.

SCROFULA.—This is a particular morbid condition of the system, where the vital forces are depressed, where we have blood elaborated of low vital stamina—albuminous, chiefly; a condition, when once acquired or transmitted, gives rise to an increased action of the heart, increased temperature; a throwing out or exuding of this albuminous blood into any part that is weak or excited; once effused, its watery portions are absorbed, its solid portions aggregate together in round masses, whence they receive the name tubercle. It is either hereditary or acquired; and, when once established, the patient is liable to its results—arrest of development, inflammations, softenings, and a tendency to destruction of all the tissues of the body. Scrofulous infants have small limbs, large abdomens, protruding chests, large heads, weak spines, and are liable to ulcerations.

Its ravages begin before birth, and terminate with death. It is one of the prominent causes of spontaneous abortion. Scrofulous infants die of convulsions, hydrocephalus, cholera infantum, consumption of the lungs, bowels and spine. Scrofula modifies all diseases with which the patient may be attacked, and renders them difficult to manage. It attacks all parts of the body, and we have every imaginable form of that type of disease. Whatever part is weakest, or whose function is impaired, becomes the focus of scrofula. Let a strumous child take cold, it will probably die from phthisis. Let some irritation or over-action cause a determination to the brain, and we have tubercular meningitis, tubercles effused, convulsions and death. Let irritation of the bowels exist, as diarrhoea, cholera infantum, and we have *tabes mesenterica*. Let there be some trifling irritation of the elbow, or wrist, or knee, or hip, and we have excited into action white swelling and coxalgia.

A morbid condition, hereditary or acquired; it may be developed first, and then transmitted. Children are born scrofulous if their parents have had syphilis, or been licentious, or one young and the other old, or of disproportionate ages or strength, or if they are nearly related, or if they have been drugged by mercury. The present unprecedented increase of this diathesis among our people in America, who possess every comfort and luxury of life, can only

be accounted for by the increased activity and excess in the generative functions, which is, no doubt, brought into active exercise by stimulants, literature and amusements of the present age. Excess, too great amativeness of parents, produce scrofulous offspring, who, inheriting the disease of the passion, as well as the organism, develop the latter by the former; and so the work of death goes on. Incompatibility of temperament is also a prominent cause; darkness, bad air, poor food, pork, drugs, whiskey, &c.

To prevent this wide-spread disease, mankind must learn the immutable laws of life; then its causes will be abolished. Abolish poverty, filth, vice, drugs, poisons, everthing that degrades humanity.

Progressive physicians have been remarkably successful in the treatment of this diathesis. Light, air, exercise, cleanliness, a pure and highly nutritious diet, exercise, bathing, flannel next the skin, and an avoidance of all the causes, especially excess of the generative system, with general invigoration. A full morning bath, with much friction, is very salutary. An occasional iodine bath tends to produce a healthy change. Sea bathing is excellent. Especial attention should be paid to promote healthy nutrition; food pure, simple, nutritious; this is indispensable. Comp. syr. stillingia and iodide potass., irisin, ampelopsin, kalmia, frostwort, are excellent remedies; cod-liver oil and glycerine, phosphorus, iron.

SCURVY.—This disease almost invariably attacks the inhabitants of northern latitudes, and seldom appears within or near the tropics, owing to the great abundance of fruits and vegetables. It often prevails in the navy and army, partly from want of cleanliness, but still more for want of sufficient supply of fresh vegetables.

Its existence has been attributed to the absence of *potash* in the food, and there are circumstances highly confirmatory of such being the case. All bodies known as antiscorbutic, as fresh meat and vegetables, milk, lemon juice, &c., contain a large amount of potash. Scorbutic patients recover speedily when a few grains of potash are added to their diet.

The *salts* of potash, also, as the nitrate, chlorate, &c., are well-known antiscorbutics.

SYMPTOMS.—The earliest and, perhaps, the best marked symptoms are observed in the countenance; the face is pale, and may be bloated; the eyes and lips have a dirty hue; the features somewhat depressed; the gums are swollen, spongy, livid, and bleed when but slightly irritated, and the breath is offensive. The patient complains of lassitude and debility, and pains in lower extremities, not unlike those of rheumatism; his limbs are feeble, his joints stiff, and he is averse to any kind of exertion. Difficulty of breathing; skin dry and harsh, sometimes rough, resembling the goose-skin appearance; but the skin is sometimes shining with patches or spots

of brown, blue, black or livid hue. These patches are first seen on the legs and thighs, but generally soon extend all over the body, excepting the face; and the disease continuing, the legs and feet become œdematous.

If the cause continues, these symptoms increase in severity; the gums become more tumid and livid; the breath more offensive, the pains more severe; and so with respect to the other symptoms. In the later stages there are often hemorrhages from mucous canals, and the loss of blood is often so great as speedily to sink the vital powers of the patient.

In these stages, too, the alvine evacuations are disordered, being frequent and offensive, and the disease may pass into a sort of scorbutic dysentery. The pulse is but little altered until the latter stage has set in. The appetite not much impaired, sometimes even greater than in health; the memory, and other mental faculties, are but little affected.

In cases of the severest type, there is a tendency to *swoon*, when the least motion may occasion fatal syncope. This is essentially a blood disease.

It has often been affirmed that salt meat is a great occasion of this malady, but I am inclined to differ from those holding that doctrine. I consider, if the meat has been of good quality, and fresh when salted, and when used of a quality entitled to "good salt meat," that it is no more productive of the disease than fresh meat.

PROGNOSIS.—This is usually favorable, unless at sea, where the cause cannot be removed.

CAUSES: improper food, cold and humidity, impure air, complications with other diseases, the state of the mind, as depressing passions, &c.

PATHOLOGY.—The blood is deficient in red corpuscles, but abounds in fibrin. Common post-mortem appearances are, deficiency of blood in the abdominal viscera, extravasations of blood into the subcutaneous cellular tissue, ecchymosis on the surface of the dependent parts, nodes, &c.

Blood in scurvy: water, 849.9; solid constituents, 150.1; fibrin, 6.5; albumen, 84.0; blood corpuscles, 37.8; salts, 9.7.

Healthy blood: water, 788.8; solid constituents, 211.2; fibrin, 3.3; albumen, 67.2; blood corpuscles, 133.7; salts, 6.8.

TREATMENT.—The dietetic treatment of scurvy rests upon the fact that protein is the basis of albumen, fibrin, casein, and these constitute the essential elements of all the tissues.

Wholesome animal and vegetable food—abundance of the latter—consisting of potatoes, turnips, carrots, parsnips, cabbages, cauliflowers, radishes, water cresses, celery, lettuces, mustard, asparagus.

Limes, lemons, oranges, apples and others of a sub-acid quality. The greater number of antiscorbutics may be preserved by *pickling* with vinegar, and so preserve their virtues for a considerable length of time. The firs are among the very best antiscorbutic agents,

such as spruce fir, common fir, &c.; hence, spruce beer is excellent. Tar water, vinegar, and, as before hinted, all the preparations of potash are of the greatest service in the treatment.

When associated with anæmia, the recumbent position must be maintained.

We have proved nitro-muriatic acid, phosphoric acid, sulphur, iron, cinchona, hydrastin and rhus radicans to be efficient agents, acting as powerful auxiliaries to the sanative influence of a properly selected diet.

The cure will be more or less speedy, according to the nutritious quality of the food, together with its variety, and according to the free use of fresh vegetables abounding with the salts of potash.

SIMPLE FEVER.—This mild type of fever has a variable duration, from twenty-four hours to a week.

Although the simplest and mildest form of febrile action, it has all the most distinctive features of true fever, as lassitude, nausea, anorexia, chilliness, pains in back and limbs, increased temperature, rapid pulse, headache, thirst, arrested secretions, slight delirium.

An excellent mode of treatment is, to thoroughly control arterial excitement with aconite and asepilus, enjoin rest in bed, and sustain the powers of life, unloeking the secretions.

SLEEPLESSNESS.—When unassociated with other diseases, will generally be found to be the consequence of some error in the mode of living. The too frequent use of tea or coffee, are, perhaps, the most common causes of nervous sleeplessness; caused also by low spirits, or a state of despondency, by grief, or, after receiving agreeable news. Some persons cannot sleep without eating more or less before going to bed; others cannot sleep when they do eat anything immediately before going to bed; thus illustrating the powerful influence habit possesses over us.

This symptom is really one that should always command the greatest attention of the physician; for the want of sleep is the most frequent and direct cause of insanity, and therefore one of the most important to guard against. Protracted wakefulness during the allotted time for repose, disorders the whole system, impairing the appetite, changing or diminishing the secretions, and weakening the mental faculties.

Want of sufficient sleep is quite as baneful to physical strength and mental vigor, as is a reduction either of the proper quantity or quality of food itself.

SPERMATORRHOEA.—This disease consists in the excessive secretion and frequent discharge of the semen masculinum, and may be occasioned by masturbation, excessive venery, gonorrhœa, ascarides in the rectum, or occur spontaneously during the night. Masturbation is the most frequent cause of the seminal discharge in this disease. This is about the most loathesome and pernicious habit that a rational creature could fall into. It soon sets up an irritation around the orifices of the ejaculatory ducts, till, by-and-by, the ejaculation is no longer accompanied by the ordinary and pleasurable sensations which were experienced in happier days. The waste of a secretion, so highly vitalized, and intended as the contribution of the male toward the continuance of the species, soon engenders nervous exhaustion.

SYMPTOMS.—The prominent and early symptoms are usually those that appertain to the mental faculties. The patient is unable to concentrate his thoughts on any given subject, even for a few minutes, or, perhaps, even moments; his memory fails him; has sad forebodings; great want of confidence in his own abilities; is cowardly; feels languid and debilitated; becomes hypochondriacal, and his physical powers are enfeebled. The genital organs are flabby and wanting in energy; the digestive organs are deranged, followed by constipated bowels, languid nutrition, impeded respiration, and husky or faltering voice. These are soon followed by loss of flesh and general emaciation. There are, generally, weakness of the joints, chlorosis, chorea, epilepsy, rheumatic and neuralgic pains, and may terminate in the patient becoming decrepid and imbecile.

The evil consequences of self-pollution are not limited to the individual, but are also transmitted to the offspring, unless, indeed, the effects of the disease are so severe as totally to incapacitate the individual to perform the function of procreation. Hence, the offspring is delicate, puny, decrepid, or the subject of numerous ailments, both physical and mental. The microscope generally reveals the presence of spermatozoa in the urine in well confirmed cases.

The causes being numerous, the treatment must be various. In cases where the cause is masturbation or sexual excess, voluntary causes, the cure must also be voluntary; and, when the irritation is in the rectum, the treatment must differ from what it should be when arising from stricture of the urethra. Nevertheless, the following general treatment will be applicable to and serviceable in all cases: let the patient sit in a cold hip-bath, for twenty minutes, three times daily; after the first sitting, a shower-bath might be used. If this does not succeed, use salt water, or sponge with salt; sponging and frictions along the spine; the use of Chapman's ice-bag daily, and dashing cold water from a height, are beneficial. Administer tonics, such as may be adapted to the peculiarities of the individual case, especially the chalybeate tonics and mineral waters. The various

preparations of cinchona are of great value, for they have considerable influence in controlling the night discharges. We have found great good result also from the employment of alteratives, such as the terchloride of gold, and irisin in alternation, or comp. syr. stil-lingia and bromide potassium, followed by sesqui-chloride of iron and phosphorus. We have also employed digitalin and lupulin with decided benefit. Nux vomica is likewise, of great value, especially where there is severe gastric derangement. When the result of gonorrhœa, gleet, discharges, stricture of the urethra, or from the irritation of ascarides in the rectum, hemorrhoids, fissures of the anus, or obstinate constipation, the treatment should be regulated with a view of meeting and combating those diseased conditions; otherwise, the treatment will be neither rational nor beneficial.

In long-standing cases we would recommend the introduction of a large-sized insulated steel sound, well oiled. As the instrument is passing the seminal ducts and the prostatic portion of the urethra, the sensation is very disagreeable the first few times, but rapidly grows less and less so, (unless the operator be reckless and unskillful,) using no force, and still succeeding in passing through the prostate. The negative sponge electrode should be already adjusted at the perineum, while the tip of the negative conductor from one galvanic cell is held in contact with the insulated sound for about ten minutes. We have cured cases by this agent in a few weeks, by applying it twice a week in the manner just indicated.

But the first and most indispensable part of the treatment always consists in removing the exciting cause; to get your patient to stop his *error of habit*; and this is often the most difficult part of our task. To facilitate this the patient should get out of bed whenever he awakens in the morning, and take a shower-bath; he should sleep on a hair mattress, and not be allowed more than seven hours for repose. The diet, while nourishing, should neither be heating nor stimulating. The amusements, reading and all social intercourse should all be of an unexceptionable character; scrupulously avoiding coming in contact with any one or anything that might excite the sensual desires.

It is of great importance that the mind, as well as the body, be fully, agreeably and profitably occupied, without, however, inducing more fatigue than will favor sound sleep during the hours set apart for repose. I do not approve of the use of lunar caustic.

This tonic and alterative course of treatment should be persevered with for months; and, if partial erections are a cause of involuntary emission, keep the patient well under the influence of bromide potass. Indeed, I make it a rule in practice to keep the patient under the influence of the bromide, and give tonics, as cinchona, iron, phosphorus, nux vomica, according to the indications.

SPINAL IRRITATION.—This morbid condition is usually the result of some pre-existing disorder, such as hysteria, of uterine irritation, of protracted leucorrhœa, disordered menstruation, of gout, rheumatism, or chronic disease attended by nervous exhaustion.

SYMPTOMS.—There is pain in the spinal column, brought on or increased by pressure or percussion, and generally complicated with neuralgia, spasmodic or paralytic affections, involving nearly all the organs and viscera of the body. The pain is increased by muscular effort, as a sudden movement or rotation of the spine, by a jerk, the least concussion, or by taking a false step in walking.

When the irritation is in the dorsal portion, it is frequently referred mainly to one side—generally the left, and is only felt below the mammæ. Usually a feeling of constriction about the thorax, or of suffocation, or accelerated action of the heart, with spasmodic cough.

If the lumbar region is the seat, there will be spasms and constriction in the abdomen, hypogastrium and pelvis; numbness, cramps and excessive tenderness; and, in severe cases, paralysis in the lower extremities, with constipation, retention of urine, irritability of the bladder and uterus, with disordered menstruation.

Spinal irritation of the cervical portion is less frequent. When it occurs as high as the occiput it is accompanied with neuralgic pains in face or neck, with partial deafness, difficulty of swallowing, loss of voice, or even of speech, aphonia, suffocative cough and altered sensibility; partial paralysis, coldness and numbness of one or both hands, pricking sensations. The pains and spinal tenderness may shift from place to place.

The change in spinal irritation is in the capillary circulation—of the cerebro-spinal axis; of the ganglia of the sympathetic or posterior spinal nerves, and of the fibrils of the nerves themselves. Brown's acupuncturator on both sides of the spine, followed with the irritating plaster. The administration of bromide potass., in the comp. syr. caulophyllin, is invariably attended with the most happy results.

Spinal Curvature—Unless when produced by caries or ankylosis of the vertebræ, spinal curvatures may be divided into three varieties, viz:

1. Posterior curvature, or excurvation.
2. Anterior curvature, or incurvation.
3. Lateral curvature.

In posterior curvature the convexity is directed backward or outward, and is generally limited to the cervical and dorsal regions, but may extend to the upper lumbar vertebræ. This is often caused during infancy by the nurse lifting the child under the armpits, whereby the ribs are pressed inward, and the spine and sternum are forced outward. Slighter forms are sometimes produced in young persons from shortness of vision, and the habit of

tooping while either reading, writing or working, or even in aged persons from the intervertebral cartilages becoming thinner and less elastic than during the prime of life, and, in such cases, the curvature extends lower in the spine. Whenever the curvature is considerable, the anterior part of the body of each vertebra has become thinner and more flattened, particularly in the centre of the curvature, and, consequently, the transverse processes, and, still more, the spinous processes, are more separated than in the natural position; the posterior ligament is also more or less stretched. The diameter of the chest, from right to left, is lessened whenever the ribs are laterally compressed, and the sternum is thereby pushed outward, assuming a similar position to the dorsal spine. In other cases, the sternum follows the direction of the dorsal vertebræ, the ribs being curved outward, and the diameter of the thorax diminished between the spine and sternum.

When the lumbar vertebræ are implicated, the angle formed by this portion of the spine, with the direction of the sacrum or pelvis, is marred, the brim of the pelvis becoming horizontal, as the spine and direction of the pelvis are nearly in the same axis.

In posterior curvature, both the capacity of the thoracic and abdominal cavities, and the position of the viscera are affected—the one diminished, the other displaced.

Anterior Curvature—(Incurvation of the spine.) This form is very rare, and generally occurs in the lumbar region, in persons who, in early life, have brought their lumbar muscles into very active use. Occurring otherwise, it may give a singular prominence to the abdomen, and, if seated near the pelvis in females, it presents the appearance of pregnancy, or of ovarian disease. When it affects the dorsal vertebræ, it causes great deformity of the chest.

Lateral Curvature is by far the most common variety, and usually appears between the ages of ten and twenty. More frequently met with in the upper and middle classes, than among the poor and hard-working. Whether this form happens to be slight or very great, they are but seldom completely lateral, but are commonly associated with more or less of the posterior curvature. Whenever the deflections of the column are considerable, the usual rotation of each vertebra on the other, must be limited in the curvatures. The sides of the bodies of the vertebræ are exposed to greater pressure towards the centres of the concavities, and diminished pressure at their convexities. The result will be compression of the more yielding tissues, and impaired rotation at the more flexed parts; and the intervertebral tissue is compressed and thinned. The bodies of the vertebræ are more or less affected, becoming atrophied in these sides, and present a rhomboidal appearance; the articulating processes are greatly altered in the part where the curvature is greatest—they become atrophied and absorbed in the concavities, whereas the spinous processes become more prominent, being protruded in the convexities.

Serious are the consequences when this form of curvature is very great; for the passages between the vertebræ for the nerves and blood-vessels are contracted in the concave, and enlarged in the convex side. The patient endures severe pains, cramps and numbness, and only partial motion of the muscles supplied by nerves on the concave side of the spine; and emaciation ensues. The general result is that the chest and abdomen become more or less irregular and encroached upon; and the various viscera are impeded in their functions. Fortunately, however, the spinal cord seldom becomes much disordered from lateral curvature, unless the bodies of the vertebræ become inflamed or carious; but when that occurs, chronic inflammations, effusions, contraction of muscles, loss of motion, and may be sensation; the spinal cord may be involved, inflammation of the brain, effusion within the cranium, coma, and death may be the sad consequents.

The causes of spinal curvature are: the female sex; the age between eight and eighteen; a lymphatic, scrofulous or rickety constitution; and inherited weakly constitution; a cachectic habit of body, &c., &c.

Best treated with rest in the recumbent position; daily shampooing to the spine, and sponging with salt water; the phosphates of lime, soda and iron, phosphorus, cinchona, hydrastis, iron, nux vomica, &c.

SUSPENDED ANIMATION—This affection is characterized by extreme anxiety of but short duration, and rapidly followed by abolition of consciousness, voluntary motion, and of the functions of circulation.

Shakspeare has described the phenomena that occur in these cases with such physiological accuracy, that we need not apologize in quoting them:

“But see! his face is black and full of blood;
His eye-lids further out than when he lived;
Staring full ghastly, like a strangled man;
His hair upreared; his nostrils stretched with struggling,
His hands abroad display’d, as one that grasp’d
And tugg’d for life, and was by strength subdued.”

Causes of asphyxia.—Whatever prevents the renewal of air in the lungs of a healthy person. There are a number of circumstances which prevent such a renewal; but the more important are, the following: strangulation, submersion, foreign bodies in the air passages, inhalation of poisonous gases, narcotic poison, a stroke of lightning, from intense cold and from syncope.

1. *Asphyxia from strangulation.*—The first effect of the tightening of the cord around the neck is the suspension of respiration and engorgement of blood in the brain, when sensibility begins to decrease; followed by epileptic convulsions, and general turgidity. If the air is not completely excluded, the sufferings are prolonged; the engorgement greater, brain more congested, and lungs less so.

In this mode of death, dislocation of the cervical vertebrae is common in public executions, but rare in suicides.

The treatment the same as in cases of drowning or submersion.

2. *Drowning*.—*Grand causes of*.—Asphyxia, which is caused by a physical impediment (water) to introduction of air into the lungs. Air escapes from lungs.

Death ensues when circulation ceases.

Symptoms.—Delirium, ringing in ears, becomes unconscious, and sinks asphyxied. Dark colored blood is circulated, which induces convulsive motions.

While body is submersed, attempts to breathe are made, when air escapes from the lungs. Syncopal asphyxia is a mixed condition. Obstruction to passage of blood through lungs sufficiently explains cerebral congestion. Extravasation of blood on the brain is owing to a blow or violence.

Asphyxia takes place from a few seconds to a minute.

Resuscitation may take place effectually in *one* to five minutes after submersion, and may be useless in another only two minutes after submersion.

Treatment.—1. Wipe body dry. 2. Keep head and shoulders raised. 3. Restore warmth of body. 4. Application of stimulants to nostrils—ammonia. 5. Clear mouth and fauces, stimulate acts of respiration. 6. Stimulating embrocation.

3. Asphyxia from foreign bodies obstructing the larynx.

The great object in these cases is to remove the cause.

4. Inhalation of poisonous gases.

Of these, perhaps, prolonged exposure to the vapors of burning charcoal is the most frequent.

Symptoms.—Buzzing noise in the ears; impaired vision, a feeling of dread, succeeded by irresistible disposition to sleep, or fainting; utter loss of volition; an accelerated pulse reduced to 45 or 50; surface cold and livid; tetanic convulsions; foam from mouth and nostrils; vomiting and death.

There are other irritating gases, nitric oxide, muriatic chlorine, ammonia, sulphurous acid, and nitrous acid vapor; also narcotic poisonous gases, as sulphuretted hydrogen, carburetted hydrogen, carbonic acid, carbonic oxide, nitrous oxide, cyanogen and oxygen.

Treatment.—In poisoning by carbonic acid—carry the patient into fresh air, rub and inhale with vinegar, throw cold water on face and apply heat to the feet. Give opium and belladonna. Free ventilation by opening doors and windows, make up a blazing fire, and place water in shallow vessels about the room.

In all forms of asphyxia, the general treatment is the same as directed when caused by drowning, and the specific treatment must be regulated by the circumstances of the particular case. In all forms, artificial respiration; electricity, positive to spine, negative to diaphragm; friction with tinct. capsicum continuously; persever-

ing efforts for at least an hour or more, and so soon as the patient can swallow an emetic of mustard.

4. *Suspended Animation*.—From intense cold, which acts mostly on the nervous system.

Symptoms.—Giddiness; inability to see; rigidity and weakness of limbs; respiration almost imperceptible; great tendency to profound sleep, and coma.

Treatment.—Endeavor to restore circulation and sensibility, by rubbing body with snow, ice or cold water; long-continued friction with flannel; the application of warmth, but very gradually. If warm milk, coffee, tea, beef tea, or wine cannot be swallowed, a stimulating enema should be introduced up the rectum.

5. From syncope—swooning, fainting.

Treatment.—Recumbent position, with head low; cold air; cold water dashed over head and chest; frictions or sinapisms over the region of the heart; ammonia or brandy in small quantities.

Galvanism to quicken the heart's action; in seemingly hopeless cases, from hemorrhage, a full dose of opium in brandy; transfusion.

6. From intoxication, or narcotic poisons.

Treatment.—Place patient on his side, with head slightly raised; cold effusion; heat to extremities; stimulating embrocations to chest; use of stomach pump; artificial respiration; galvanism; strong tea or coffee; solution of acetate of ammonia. In ordinary cases, if there be no reason for haste, permit the patient to sleep long enough to partially recover from the effects of the poison; but, when deemed necessary to arouse him, do so by dashing cold water upon his forehead. Also, see drowning.

SYPHILIS.—There is a discrepancy of opinion as to the time when it was first recognized; but the evidence seems to be in favor of those who consider that it was first observed during the invasion of Italy by the victorious army of Charles VIII. of France; and that it first broke out extensively at Naples when the French took possession of that city in 1495, but the simple chancre existed in the early ages of the world. Its sad ravages become apparent wherever sexual intercourse is loose and varied, and especially when limited to a few women among many men. Its terrible consequences have been greatly augmented by its empirical treatment with mercury.

All physicians who have been engaged in extensive city, clinical or hospital practice, will agree with me in the following statement. There are two grades, types, or species of the syphilitic poison; one mild and non-infecting; the other of great intensity, always producing constitutional symptoms.

If the virus of either is applied to the mucous membrane of the urethra, we have a gonorrhœa, either of a non-infecting or infecting type.

If the virus of either is applied to the cuticle, a specific ulcer or chancre is the result, corresponding to the character or grade of the virus which gave its origin. Thus, there are two varieties of sores, the simple and specific.

(1.) *Simple, soft, non-indurated chancre*, belongs to the virus of weak intensity, never capable of contaminating the constitution. The following are the peculiarities of these ulcers; the inoculation of some part with the specific virus sets up inflammation, and a vesicle is formed which, in about a week, (if not disturbed,) will break, and leave a sore scooped out, and well-defined in its character, discharging a profuse quantity of pus, soft to the feel if grasped between the forefinger and thumb. If simple dressing is applied to such a sore, and ordinary cleanliness observed, it will heal in a month or six weeks. The secretion is abundant, purulent and inoculable. Instead of one there are generally three or four—extremely liable to complications, as inflammation of the lymphatics of the groin, phagedenic ulcers, &c.

Effective cauterization by caustic potassa will destroy the ulcer, and change it from a specific to a simple sore, which will readily heal in a week or ten days under the restorative influence of the following:

R.—Black salve, ʒj; et sulph. morphiae, grs. iij.—*Mix* well together; spread on lint and apply.

If the habit is gross, the patient living in an ill-ventilated abode, improper diet and all other hygienic laws are violated, or where the constitution is terribly depressed, from whatever cause, this form of chancre may become phagedenic. When this happens, the sore is irritable, exquisitely painful, ragged edges, eating and spreading irregularly, and intensely painful.

Then our mode of treatment is obvious—complete destruction of the sore, afterwards dressing with an ointment of opium, or sprinkling on sulphate morphia, and then some bland dressing, thereby effectually blunting the sensibilities of the patient with anodynes.

The CAUSE of the phagedenic ulcer should be well appreciated; frequently the result of a broken down condition of the vital powers.

TREATMENT.—Nourishing food, stimulants, thorough hygiene, cinchona, hydrastis, iron, phosphorus, are the most efficient remedies; a yeast poultice is also valuable.

In the scrofulous we often meet with this form of chancre assuming a horse-shoe form, whence the term serpiginous is applied. The only successful treatment is to change the diathesis by tonics and alteratives, as the comp. syr. frostwort, stillingia, &c., and painting the sore with Logul's tinct. iodine, also giving the same internally, ten to fifteen drops thrice daily. The cure may seem tedious, but a rigid alterative course will eventually succeed.

(2.) *Indurated, Hunterian true or inflicting chancre*.—This form of chancre is due to the contact with the poison of highest intensity,

and invariably results in constitutional syphilis, unless the vesicle is aborted, or proper constitutional treatment quickly enforced and strictly carried out. The following is the usual course of this form of sore; the virus is applied to some part of the glans penis during connection or otherwise; inoculation takes place, inflammation is excited; a vesicle forms which, in about eight days, breaks and reveals a sore, presenting an appearance as if a portion of the tissue was pinched out; the secretion scanty and thin; grasp it between the finger and thumb, it feels as if there was a piece of cartilage in its base; there is never more than one, unless a hard and soft chancre co-exist, which may result from the patient having connection with two women, one suffering from the grade of low intensity, the other from the grade of high power, the true syphilitic poison. The sore or incrustation, aborted by the application of the caustic potassa before the eighth day, will fail to affect the constitution.

It will heal in from four to six weeks, and the induration gradually disappears in a few weeks, and secondary symptoms show themselves in about six months, sooner or later, according to the vigor of the constitution. In this form we seldom have the complication enumerated under the soft.

The TREATMENT of indurated or infecting chancre is plain, consisting of complete destruction of the sore; if this can be accomplished before the eighth day, there will be little danger of constitutional contamination; if subsequently, little is to be gained, only to destroy the character of the sore. My favorite caustic is, caustic potass.; although, if the patient will submit to it, excision of all the indurated portion by the knife is the most positive plan.

Whichever is adopted, anodyne dressing, as sulphate of morphia, and powerful active constitutional treatment for the elimination of a poison.

The period of incubation of the vesicle is eight days, and of the poison from a few weeks to six months, although this will depend greatly upon the integrity of the vital powers of the patient.

The mode of absorption is evidently by the veins to the lymphatics hence the lymphatics of the groin are in a state of induration, resembling small bullets.

What is the progress of an indurated chancre? Constitutional infection ensues; indeed, it is analogous to vaccination—the vaccine virus is not directly absorbed so as to affect the constitution; it passes through a peculiar process in order to produce a constitutional effect; a pustule must form ere the systemic effect is secured.

The sequences of an infecting chancre are perfectly similar: the virus, placed in contact with the glans penis, produces an indurated chancre, from which the system becomes contaminated.

The natural progress of the pustule (syphilitic or otherwise) is lessened or even destroyed by rubbing, scratching, burning, or excising it; by any such interference we are likely to deprive it of its

constitutional infection—or cauterize the vaccine pustule during the first few days of its course, and no effect will be produced. Contrariwise, allow an infecting chancre to take its course undisturbed, systemic disease will be established within six months, assuming that no treatment be adopted *pro tempore*.

The results of the absorption of syphilitic virus are, impairment of vital power; it is often the cause of obscure disease of the vital organs, affection of the bones, intractable ulcers of the skin or mucous surface, impotence, sterility, abortion and death.

The characteristic symptoms of the presence of the syphilitic virus lurking in the blood are the following:

A general disturbance of the system, slight and occasional attacks of fever, great mental depression, lassitude, pains in the limbs at night, sallow hue of skin. These premonitory symptoms are followed by unmistakable ones, huskiness of throat, post cervical glands enlarged, feeling like bullets, pain and tenderness in the sternum, falling off of the hair, loss of the eye-brows and eyelashes; syphilitic iritis; discoloration and crumbling of the nails, with inflammation and ulceration about the roots of the nails; ulceration of the mucous membrane of the mouth, tongue, lips, larynx; disease of the periosteum and bones. All the secondary symptoms show nature making an effort to eliminate a poison, the syphilitic fever, the headache, eruptions.

It never can be mistaken for any other affection; the erythema has copper-colored edges; the insensibility of the skin where the eruption appears, absence of pain, heat, itching, and its circular form.

Whenever this poison is introduced into the system, eruptive manifestations give evidence of a deep-seated change in every part of the organism. The blood is charged with poisonous principle, and all the organs supplied with that blood suffers to a greater or less extent.

In the treatment of syphilis we must always regard it as a poison operating on the blood; and at the time we are giving alteratives and eliminating agents, we should not forget light nutritious diet, fish, milk, cream, raw eggs, warm clothing, flannel, avoidance of cold or damp; daily baths, and a sulphur bath at least twice a week. Our best remedies are the following: alnuin, corydalin, stillingin, sarsaparilla, ampelopsin, helianthem, rumin, irisin, podophyllin, kalmia, gold, &c.

If the mucous membrane of the mouth is affected there are ulcers; touch them with nitric acid, and use, as a wash or gargle, sulphate of hydrastin and borax, depending upon constitutional treatment for a cure. The skin affections do not require any special treatment, merely protecting the abrasion, and relying solely upon an alterative course.

The same treatment for tertiary form.

Infantile syphilis may be hereditary or acquired; if hereditary,

the infant may be born apparently healthy-looking, with its skin a dull color, its features contracted, like an aged person.

Within a month after birth, symptoms of coryza set in, cough, difficulty in nursing, dryness of mouth, voice shrill, ulcerations about mouth and throat, afterwards the parts around the mouth, nostrils, buttocks, arms, become copper-colored, fissured and excoriated. Great wasting and weakness. Then disease of important organs, as amyloid disease of liver, tubercular lungs; succeeded, it may be, by emaciation, and a senile appearance of the countenance; snuffling or obstruction of the nose; enlargement of the glands; general cachexia, terminating in death.

Syphilization, or successive inoculations with the syphilitic poison, has been attempted as a preventive to syphilis, but its offensive nature, and its uncertainty, render it unfit to be tolerated among intelligent practitioners.

TABES MESENTERICA.—An effusion of tubercular matter in the mesenteric glands, may be ranked next to that same diseased condition in the lungs in point of mortality. Two-thirds of our infantile population are carried off by this disease. When tubercle is effused into the mesenteric glands, it destroys their structure, obstructs the passage of chyle through the convoluted lacteals, traversing them, and ultimately we have degeneration of the glands. Any irritation of the bowels or peritoneum is extremely liable to cause effusion of tubercular matter; hence its frequency after diarrhoea, &c.

Probably one of the earliest symptoms of this fatal disease, is a remarkable increase of temperature, 105° . This symptom may be detected long before the abdomen becomes swollen or tense.

This is a peculiar feature of all forms of progressive tuberculosis, becoming normal the moment we arrest the disease.

Another characteristic symptom is enlargement of the abdomen and wasting of all the body, extreme emaciation. Pain in the bowels, more or less constant, which causes the child to draw its legs up towards its belly. Deep red color of lips; small ulcers on the angles of the mouth, or lips fissured; bowels irregular, swollen, tense. If proper treatment is resorted to before the action of the glands are much impeded, recovery is rapid.

There are two points in treatment of essential importance. (1.) Tone up the nervous system as the best means of getting the system to more perfectly elaborate blood. (2.) Neutralize acidity, for all the secretions are highly acid.

To fulfill the first indication, milk, nourishing food, milk and lime water, white of eggs, juice of meat, salt-water baths, flannel clothing, roller round abdomen, sea air, well-ventilated sleeping room. For remedies, phosphorus, elixir, cinchona, hydrastin, iron, glycerine and iodine, cod liver oil.

To meet the second indication: alkalies, sulphite, soda, lime water.

TESTES DISEASES.—These may appear during secondary, but are generally among the earliest forms of the tertiary symptoms. They may ensue in a few months, or may not supervene for as many years, from the primary affection; and are sometimes associated by pains in the bones, as exostoses.

At first, there are slight nocturnal pains in the loins, but the affection may have reached a considerable height before it is recognized.

Both testes may be affected at once, or it may commence in one, and afterwards extend to the other. The patient's attention may not be directed to the disease till he feels the testes heavy and hard, and observes them greatly increased in size. Still, the disease may run its course without inflicting much uneasiness, and so be neglected, until organic lesions supervene, which cannot be removed.

On the full development of the disease, both the erections and the venereal desire become less frequent, and the seminal discharge diminishes. The disease, being neglected, the testes decrease in size, become atrophied, and may almost entirely disappear.

TREATMENT.—Remove the cause, avoid active exercise, use suspensory bandage, iodine liniment, and, internally, iodide of potassium.

Rheumatism of the testes.—When this occurs it is generally to be accounted for on the principal of metastasis; the pain is intense, and the swelling considerable.

TREATMENT the same as for rheumatism—alkalies, alteratives.

Neuralgia of the testes.—In some cases there is only increased sensibility or *irritable* testes; but often the seat of a most distressing pain, which from its character, is recognized as a true neuralgia. In these cases there is no swelling, and but little increase of heat. Pressure aggravates the pain, and the glands retract toward the groin during the paroxysms.

CAUSES.—Excessive intercourse, onanism, calculus, testitis, gout, dyspepsia, varicocele, &c.

TREATMENT.—Opium, belladonna, aconite, &c., locally applied; cold lotions, or ice bag; subcutaneous injections of morphia into scrotum; quinine, iron, and valerianate of ammonia. Internally, gelsemin, and bromide potass.

Testitis or inflammation of the testicle.—This may either be acute or chronic.

CAUSES.—*Acute testitis.*—Gonorrhœal inflammation from urethra; this being often aggravated by strong injections, indulgence in alcoholic drinks. The epididymis and tunica vaginalis or the body of the gland, or all these may suffer.

SYMPTOMS.—Weight and pain in cord and testicle, uneasiness about loin and groin; frequent micturition; swelling of testicle; scrotum firm and tense, and swelling of cord. Great tenderness, augmented by pressure; nausea and vomiting, constipation, and febrile disturbance.

TREATMENT.—Emetic of lobelia, followed with cathartic, then gelsemin until thoroughly relaxed; follow with bromide from five to thirty grains every few hours, lotion of muriate of ammonia and common salt to the testicle.

Chronic testis.—*Sarcocele.*—This is either the sequel of a syphilitic taint, stricture of urethra, gleet, an acute attack, or the inflammation may be subacute or chronic from the very commencement.

SYMPTOMS.—Swelling, hardness, tenderness, and a feeling of weight; and sometimes effusion of serum into tunica vaginalis. The disease generally begins in the epididymis, but soon extends to the testicle.

TREATMENT.—Removal of cause, avoidance of active exercise; use of suspensory bandage, pressure uniformly applied, iodine liniment and iodide potassium, or belladonna ointment, iodide potass., and muriate ammonia.

TETANUS.—Of all diseases of the nervous system there is none so terrible, or so hopeless in treatment, as tetanus. The power of the medulla oblongata to receive irritation from a distant point, and to have it indelibly fixed there is an interesting study. A nervous branch or twig bruised or irritated at some peripheral point, the irritation at once communicated to the nerve centres, gives rise to effusion. This condition is the standing point, and gives us the true characteristics of the disease, in the form of long continued contraction, or spasm of some or all of the voluntary muscles. The rigidity of the muscles is continuous, a tonic spasm or spastic contraction, and so termed in contradistinction to clonic spasms of convulsions, where there are alternate contractions and relaxations. These spasms are excited from the irritation imprinted on the central point.

There are numerous varieties, but it is sufficient to arrange them under the head of traumatic and idiopathic. When it depends upon the latter condition of the system, it is much more hopeful than when the result of a wound. The symptoms are almost identical with those produced by the poisoning with strychnine.

The cause in every case is irritation propagated to the spinal cord, which irritation gives rise to congestion, inflammation and effusion. There is no doubt but that depression of the vital forces is a predisposing cause.

SYMPTOMS—Are extremely variable, but generally it sets in with great suddenness, and the muscles of jaw and throat become first affected. Patient complains he has taken cold, throat slightly sore or stiff, and a feeling of stiffness; soreness and uneasiness soon increase rapidly, extending to the root of the tongue, causing difficulty in swallowing. The temporal and masseter muscles gradually get involved, *then we have trismus or lock-jaw* occurring. When the disease proceeds, the remaining muscles of face, trunk, extremities, become implicated, spasms never entirely cease, except during sleep,

aggravated every fifteen minutes or so, increasing every recurrence, lasting but a few minutes, and then partially subsiding. When the strong muscles of the back are most affected, they bend the body into the shape of an arch, so that the patient rests upon head and heels, a condition known as *opisthotonos*. If the body is bent forward by strong contraction of the muscles of the neck and abdomen, it is termed *emprosthotonos*. If the muscles are affected laterally, so that the body is curved sideways, it has been termed *pleurosthotonos*.

The frightful suffering caused by tetanic spasms, it is impossible to describe. Face pale, bloodless, brows contracted, skin covering forehead corrugated, eyes fixed prominent, sometimes suffused with tears, nostrils dilated, corners of mouth drawn back, teeth exposed, features fixed in a grin, respiration performed with difficulty and anguish, severe pain at sternum, great thirst, increased agonizing attempts at deglutition, pulse feeble and frequent, skin covered with perspiration, patient cannot sleep, or if he dozes it is only for a few minutes at a time; with all this suffering, intellect remains clear and unaffected, obstinate constipation. Death occurs between three and five days, partly from suffocation, partly from exhaustion.

TREATMENT.—The only treatment successful, has been keeping the patient thoroughly under the influence of Thompson's third preparation of lobelia, running it between the teeth, administering it per rectum. This seldom fails to induce profound relaxation. If it does, still give it internally, as the capsicum, valerian and lobelia have an excellent effect in relieving the sensorium, but, in addition, enemas of an infusion of tobacco and also inhalations of chloroform. As soon as perfect relaxation has been secured, it must be maintained for three or four days. Then immediately give a large dose of comp. powder of jalap and podophyllin in which rub up a drop of croton oil, and repeat if necessary. Cup the spine freely, then try ice, in alternation, with the actual cautery for the first twelve hours; afterwards the extract of belladonna rubbed up in glycerine, smeared over the spine and back.

If this much can be accomplished, there are two remedies that have cured, viz: calabar bean and bromide potass., the former in from five to ten grains, every two hours; the latter in drachm doses as often; the calabar bean will paralyze or suspend the impressibility of the nerve centres; the bromide will excite absorption of the effused fluid and remove congestion. Sleep should be procured with subcutaneous injections of atropia or morphia, and, if these fail, nicotine.

If the patient, with proper nourishment and treatment, can be carried along four or five days the case becomes more hopeful; there is more time to procure the absorption of the effusion around the cord. The diet should be milk and white of egg, and if there is depression, brandy. Other remedies, as aconite, conium, sulphite

soda, prolonged application of ice to the spine, are used, in some cases, with unbounded success. Opium must never be used in tetanus, because it increases the congestion, as well as the polar excitement of the cord.

In the chronic stage, we have good success with quinine, iron, phosphorus, vapor baths, assafoetida, hydrocyanic acid, Indian hemp.

TINEA OR PORRIGO.—This is a chronic skin disease, affecting chiefly the hair follicles, where specific parasitic plants are developed; but not invariably confined to the head.

This is a generic term for several pustular diseases chiefly affecting the scalp, and not a little confusion has been occasioned by the great diversity of opinion respecting the varieties or forms of cutaneous disease that ought to be included under it. After careful study we have adopted the following classification, reckoning it the most lucid and simple that can well be made.

SECTION I.—Tinea, or true porriginous eruption, embracing—Species 1, *larvalis*; 2, *lupinosa*; 3, *favosa*.

SECTION II.—Eczematous tinea—Species 4, *furfurans*.

SECTION III.—Anomalous tinea—Species 5, *scutulata*; 6, *decalvans*.

The three species of the first section are characterized by the pustules having those forms which are known as *favus* and *achor*, and by their not being accompanied with fever. Strictly viewed, they are varieties rather than distinct species, for they are sometimes found on the same person simultaneously. Both sexes and all ages are obnoxious to the disease, but those in infancy and youth, more than others.

CAUSES.—Strumous diathesis, constitutional or local debility, uncleanness, improper food, disordered digestion, and depressing passions

1. Porrigo Larvalis, Milk Scall or Crust.—Generally milk scall appears on the forehead or cheeks, in the form of white or yellowish superficial pustules, upon a red surface, and in irregular groups. They pour out, on breaking, a greenish-yellow fluid, which concrete into scabs of a brownish hue. New groups of pustules form in the vicinity of the old ones, until the whole face may become covered by the scabs, as if with a mask; and the crusts exhale a peculiar odor which has been aptly likened to sour, putrid milk. The eruption rarely appears upon the nose or eyebrows; and when upon the hairy scalp, it assumes a chronic character. There is itching, and frequently stinging pains, which, in infants, both disturb the sleep and derange the appetite. Eyes and eyelids often inflamed, and discharge a purulent matter; and when the discharge on the scalp is absorbed, the parotid glands swell. When the disease is placed under proper treatment, the pustules form more slowly, exude less,

and the crusts fall off and are not renewed, leaving behind them a red tender cuticle.

It occurs in infants during the cutting of the first teeth, and in children during second dentition.

Sometimes mistaken for *tinea favosa*, but the circular, depressed crusts of the latter distinguish it from the former.

PROGNOSIS.—Always favorable.

2. Lupinosa.—This variety is distinguished by the *achores*, which arise in separate clusters, forming, when they break, circular scabs, set deeply in the skin. It is sometimes found on the shoulders, thorax and abdomen; but are larger when on the scalp—being when so situated nearly the size of a cent piece. The eruption exhales an offensive odor; and affords a harbor for pediculi in the crevices of the crusts. The cervical glands swell when the acrid discharge is absorbed; and long-protracted cases terminate in baldness. The disease is persistent when let alone, and even tedious under proper treatment.

It occurs less frequently than any of the other species of *tinea*; and its predisposing cause is an impoverished condition of the system from poor diet.

3. Tinea Favosa, or Honey-comb Scall.—The scalp is the usual seat of this disease; but it is sometimes found on the temples, forehead, chin and behind the ears. It is characterized by dry, thick, yellow crusts, which are remarkable for their thickness, dryness, brittleness and depressed centres. The disease progressing, if great care be not taken to keep the parts clean, pediculi will harbor in the crusts, the itching will increase, and the eruption will exhale a fearful odor.

This form is contagious, because the discharge will occasion inflammation and scabbing on any sound part with which a diseased part comes in contact. Sometimes confounded with *tinea furfurans*; but may readily be distinguished, as they occur in different parts of the body.

SECTION II.—Eczematous *tinea*.

4 Furfurans.—This eruption commonly appears on the nape of the neck, on the temples or at the margin of the hairy scalp. It commences with a crop of minute *achores*, the pus in which is unusually transparent, and thus have been mistaken for vesicles.

The discharge is moderate, viscid, and exhales a disagreeable odor. The inflammation extends to the bulbs of the hairs, which fall out, and baldness ensues.

Most liable to be confounded with psoriasis and lepra; but we observe no moisture, ulceration, nor diseased condition of the hair in these diseases, as we do in *furfurans*. Moreover, they are not contagious like this affection.

SECTION III.—Anomalous *tinea*—5, *scutulata*, or *tonsurans*; 6, *decalvans*.

Under this section of *tinea* are embraced chronic inflammatory

affections of a contagious character, having minute, circular groups of *achores*, which exude a fluid that concretes into crusts.

5. Tinea Scutulata—Ring-worm of the Scalp.—This is both worst to manage, and the most contagious of them all. The pustules may be on the forehead or neck, but are usually seated on the scalp. A microscope displays minute whitish-yellow pustules, embedded in the epidermis. These break and are followed by thin crusts; and, after a few days, they are surrounded by a circle of flesh pustules, which break and crust in their turn. The pustules are generally preceded by erythematic patches, which itch.

CAUSES.—It originates spontaneously in weak, flabby, badly nourished children, especially when confined to close, ill-ventilated apartments; and its introduction into a school, for instance, is sufficient to fix it there, it may be, for years.

The circular form of the patches, their manner of extension, the minuteness of the *achores*, as well as their contagious nature, readily distinguish it from all other eruptions.

6. Tinea Decalvans is characterized by the falling out of the hair rapidly, from circular spots, leaving a smooth bald surface, without either crusts, scales or eruptions of any sort. Sometimes the patches enlarge, and run into one another, so as to produce baldness of the greater part of the scalp. It is very difficult to trace the cause of this peculiar affection, unless it be some morbid condition of the secreting follicles of the hair.

TREATMENT.—The same in all the varieties. First and foremost is cleanliness—local and general. Second: improve the state of the constitution, and with appropriate remedies. Third: removal of the local affection. Change of air, exercise and suitable diet are often requisite to facilitate a cure. Frequent ablutions and poultices, in order to remove the crusts; tonics and alteratives. *Local means* are indispensable, such as may restore the hair follicles to a healthy state, and destroy the parasitic formations, such as sulphur ointment, iodide sulphur ointment, pitch ointment, creasote ointment, and ointment containing the sulphate of copper. Also the following in the form of a lotion: dilutions of the acids, borax, tan water, turpentine, but above all others, the hyposulphite of soda. We have used it with the very best results; it is both speedy and certain.

TONSILLITIS.—This affection is particularly prevalent during variable states of the weather. Heat and dryness are the earliest local symptoms, preceded by rigors; throat afterwards becomes filled by mucus; inflamed parts covered by viscid mucus, glands at the angles of the jaw become swollen, hawking and spitting of tough mucus, involuntary efforts to swallow, respiration affected, hearing diminished, febrile symptoms sthenic, pulse full, restlessness, suppuration, relief by puncture, pus foetid, frequently gives way when patient is asleep.

Duration from five to ten days, and sometimes terminates by external abscess. Tonsils often remain for some time swollen; very apt to return, and sometimes remain permanently hypertrophied. The voice is altered. The disease is said sometimes to terminate in gangrene.

Causes.—Childhood, youth or middle age. Exciting causes: cold, autumn, winter, spring; cold drinks when body is heated, atmospheric vicissitudes, wet feet, &c.

The predisposing causes are, inherited scrofulous discrasia, irritability, chronic enlargement of the tonsils from mercurial salivations, and derangements of the stomach and bowels.

Treatment.—Smart emetic at outset, of lobelia and capsicum, succeeded by aconitum and belladonna, which are of the greatest value.

Steam of hot water inhaled, hot pediluvia. In strumous diathesis, cod liver oil and iodide potassium are highly beneficial.

When arising from a chill by being wet, or wet feet, pulsatilla is indicated, and of great utility. Chlorate potass. makes an excellent gargle.

TOOTHACHE.—Although the teeth of man are the last part of the whole body to decay after death—resisting chemical decomposition frequently for a whole century, yet they are very frequently the subject of disease during life; indeed they are the first part of the body to decay. The teeth of animals are the same in chemical composition as our own, yet the former seldom evince any signs of having toothache.

It is also remarkable, that neither slaves nor savages are scarcely ever afflicted with this tormenting affection; this, for example, is the experience of American Indians while living in their uncivilized condition. The less artificial our living, the less liability will there be to toothache. Cold food preserves, whereas hot food destroys the teeth; any substance warmer than the blood, is more or less destructive to the teeth.

But besides the almost universally existing cause of *hot* drinks and food, there are others, such as 1. Hereditary predisposition. 2. Diseases of infancy. 3. The disastrous effects of the use of that most destructive mineral, mercury, and derangements of the digestive functions.

Treatment.—In caries, remove the dead portion from the living; afterwards, the cavity should be filled with gold, so as to exclude air and liquids.

In cases where the inflammation has attacked both the inner and outer membrane, extraction is the only efficient treatment.

Injuries.—If loosened by a blow or fall, they should be promptly and accurately placed in the sockets, and kept there by ligatures, allowing the gums to bleed freely, and a lotion of arnica (or if there

be a tendency to erysipelas, of calendula,) freely employed until the inflammation disappears.

The most reliable remedies to subdue the pain that we have met with are, aconite, belladonna, hyoseyamus, bryonia, chamomilla and pulsatilla.

Aconite and bryonia are especially serviceable in rheumatic toothache; belladonna or aconite when neuralgic in their character. We generally drop from four to eight drops of the tincture on a very small piece of cotton wool, and insert the same in the hollow of the tooth, and direct the patient to take the same medicine internally every two to four hours, in from five to ten drop doses.

The local application of camphor and chloroform in equal parts, in the same way often proves of great benefit.

TRICHINA SPIRALIS.—A disease where a small species of entozoa exist in the voluntary muscles or intestinal canal.

It is many years since these entozoa were found in the muscles of the hog, but comparatively recent since they were found to have a seat in the human species. In feeding an animal with trichinatus muscles, the villi of the intestinal canal become crowded with psorospermia, and free in the intestinal mucus, numerous thread-like worms of both sexes were distinctly visible under the microscope; thus proving that the trichinæ are bisexual.

Small portions of muscles have even been taken from persons while suffering with the disease, and trichinæ have been found interspersed throughout that structure. Of all animals the pig appears to have the greatest tendency to this disease, and, when existing in any animal, renders the same, when killed, unfit to be used as meat; or, if so employed, it renders the partaker thereof obnoxious to the disease. Ham, as well as fresh pork, not unseldom contains trichinæ, and our caution in the selection of such animal food will not be diminished when we consider that, to the naked eye, the meat or ham may appear perfectly healthy.

The symptoms are not unlike those of typhus fever, with the exception that there is no enlargement of the spleen. The patient generally complains of depression, lassitude, sleeplessness, loss of appetite, heat and thirst, the abdomen painful and tympanitic, diarrhoea, great stiffness of limbs, frequent pulse, offensive sweats, scanty urine. In cases where a large quantity of trichinous meat has been eaten, the patient is apt to be prostrated with paralysis. About the fourth week, sometimes sooner, should no improvement take place, the patient's condition is very unfavorable; the pain intense, pulse and respirations frequent, sweating profuse, great difficulty in opening the mouth, precordial anxiety, delirium and death. Complicated cases may prove fatal earlier. In favorable cases there is a gradual diminution of the pain and swelling, and restoration of the digestive function.

A disease almost identical with the foregoing is sausage poisoning, known in Germany by the term *allantotoximum*. It is now well ascertained that the vitality of trichinæ is not destroyed unless the tissue in which they are lodged be exposed to the temperature of boiling water, and sufficiently long to insure that every particle has been acted upon by that degree of heat.

The treatment is not so satisfactory as it should be in the hands of those who use calomel, to the almost utter exclusion of more appropriate and efficient remedies. Oil of turpentine, santonine, are of considerable service; but the true panacea is benzine, which should be given thus: *R*.—Benzine, $\mathfrak{z}\text{ij}$;

Liquorice juice, $\mathfrak{z}\text{j}$;

Gum Arabic, $\mathfrak{z}\text{j}$;

Peppermint water, $\mathfrak{z}\text{iv}$.—*Mix*.

A tablespooful every one or two hours.

TUBERCULOSIS.—This term is used to designate an idiopathic blood disease. The precise nature of the blood is not known, but the watery portion is increased; there is also a marked diminution of the red corpuscles, the blood is more plastic and albuminous. It is identical with scrofula, and the cause that produce both conditions some hereditary depression of vital powers; but it is often acquired without being inherited, provided the patient is subjected to depressing influences.

The true pathological definition, is from some defect of the nervous system, whereby the blood that is elaborated is of low vital power, being highly albuminous, defective in its organizable capacity, liable at any time the circulation is excited, or some part irritated, to be effused in the lungs, brain, glands, &c., and once effused its watery portions are absorbed, and it aggregates together and forms a substance known as tubercle.

When this diathesis exists, it modifies and influences every disease with which the patient may be attacked; indeed, it predisposes to disease, and renders them more persistent and intractable.

This diathesis may remain latent in the system for a lifetime, unless called into active existence by some form of hyperamia, or local determination of blood, and its effects upon a part are an arrest or an impairment of function, an effort of nature to throw it off, and lastly ulceration.

Elimination is the most common mode of throwing it off.

The parts where tubercle is deposited by preference, are in the apex of the lungs; in the pia mater, about the base of the brain; in the gray substance of the brain; in the cancellated structure of bones; mesenteric glands, testicle, &c.

The only possible cure of tubercular disease, after the deposit has occurred, consists in its total elimination or absorption, and in improving the tone of the nervous system, so as to obtain a healthy

blood formation, so that no new tubercular matter is formed. For this purpose, the allaying or preventing pulmonary irritation, and effectually keeping the pulse at its normal standard; and toning or strengthening the patient's system by all possible hygienic and therapeutic measures.

It is a noted fact, that in tuberculosis, digestion is feeble, or in other words, the stomach sympathizes with the general weakness, food is delayed longer than what is natural, and acidity is the result. This is an important point also to be looked to in treatment.

TYPHOID FEVER.—In the long range of febrile disease there is none that has such a gradual approach as this fever—languor lassitude, debility, anorexia, headache for several days, then bleeding from the nose; bronchial cough are early pathognomonic symptoms. Then febrile symptoms are developed. The face acquires a dark purplish flush. He lies dosing, or muttering, but is wakeful and delirious at night. Dullness of hearing is common about the second week. The abdomen swells, and there is diarrhoea. Rose-colored lenticular spots, disappearing on pressure, are found on the abdomen towards the end of the second week. Tenderness on pressure on the right iliac region, and gurgling under the hand. Sudamina over the chest not unusual. The duration of the typhoid pyrexia is from two to three weeks, but in many cases it is protracted for six or eight weeks. One month from the start to convalescence, is about the usual length it runs under fair treatment.

When once established, the small wiry pulse, retention or suppression of urine, hemorrhage from the bowels, brown dry tongue, sordes on the teeth, ulceration of the intestines are all characteristic of the disease.

The rise from the normal temperature in typhoid fever is gradual during the first four or five days, till it reaches 104° , when it is lower; it is a most favorable indication, if higher it shows a severe case.

Diarrhoea and hemorrhage from the bowels are characteristic. The urine is scanty, high colored, excessive in the amount of urea, deficient in the chlorides.

It is apt to be complicated with pneumonia.

The most common consequences are, a very slow convalescence. The nervous system greatly shocked or enfeebled paralysis.

The parts affected in typhoid fever, are the glands of Peyer in the small intestines, the mesenteric gland and spleen. The glands of the bowels go through the various stages of inflammation, congestion, induration and ulceration, and the cure is the elimination of the poison and the healing of the ulcers by granulation.

If the case is seen early, an effort at aborting it should be made,

as follows: an emetic of lobelia, eupatorium and capsicum, followed with the following: *Ry.*—Sulph. quinine; prussiate ferri, āā grs. xii; gelsemin, grs. iii; capsicum, grs. x.—*Mix.* Make six powders, and give one every three hours, controlling any febrile condition with aconite.

A great diminution of temperature will be a sign of amelioration. But, if once established, it is self-limited—there is no cutting it short; we must conduct the patient through it as safely as possible. Aconite should be given as a diaphoretic and arterial sedative, all through the case: the entire surface should be sponged three times daily. The bowels should never be disturbed, unless obstinately confined, and then a teaspoonful of the neutralizing mixture and a few grains of leptandrin, to free the secretions of the liver.

The diet should be liquid, milk and beef essence every hour, in alternation, and, if a stimulant is indicated, brandy should be added to the milk. Phosphorus is the only remedy that seems to fortify the system against the poison, and it can be given in all cases of typhoid fever, with very efficacious results. If there is great fetor, a teaspoonful of yeast, twice daily, acts well in milk. Over the entire abdomen, a hot, moist poultice of pulverized flaxseed and mustard, might be kept continuously applied. Diarrhoea must be checked; give the following:

Ry.—Extract hæmatoxylon;
Sulphate quinine;
Opii, āā grs. xx;
Gelsemin grs. v;
Tannin, q. s.

Make xxv pills. One after every motion of the bowels. If there is hemorrhage from the bowels, give erigeron in some mucilage.

There are few remedies that effect the ulcerated glands of the bowels, and in the ordinary run of the case little is demanded. Turpentine, in doses of from eight to ten drops three times a day, has a most excellent effect. It seems to act as a local alterative to the ulcerated surface of the bowel. Another invaluable remedy is nitro-muriatic acid in six-drop doses three times a day.

Attention to the state of the bladder, day by day, to prevent or relieve retention of the urine, is highly important.

The recumbent position should be strictly maintained all through the case. This is highly important.

Convalescence should be established upon a course of tonics, as cinchona, hydrastis, gold thread, nux vomica, &c.—remedies calculated to give tone to the weakened bowels and shattered nervous system. Phosphorus is undoubtedly one of our best remedies all through a case of typhoid fever.

TYPHUS FEVER.—This is a contagious fever, and arises solely from animal miasma. It is generally produced by over-crowding in ill-ventilated abodes, or ships, or hospitals, or prisons, and, when once generated, it prevails epidemically. Its duration is from fourteen to twenty-one days.

This fever has a period of incubation varying from a few to twelve days. Then a stupid, dull aspect; heavy rash makes its appearance; the skin becomes dry, heated, extremely sallow; great thirst, most obstinate constipation; the stupor becomes extreme; great prostration; toward evening symptoms are much aggravated; there is also irritability, restlessness, sleepless nights. About the seventh day the peculiar rash incidental to the disease makes its appearance, and consists of a true measly eruption, appearing at first in irregular spots, of a dusky or mulberry color, disappearing on pressure, feeling as if they were raised above the skin, generally appearing first on the face, chest, &c., and remain permanent till the end of the fever; they may be accompanied by, or become converted into, petechia; in some cases they are altogether wanting.

The symptoms characteristic of the first week are, the stupor, profound lethargy, deafness, noises in the ears; the conjunctiva injected; the measly eruption; the obstinate constipation, never diarrhœa; tongue brown and dry. The patient lies in a stupor, but wakeful; he dozes or sleeps, but he is not refreshed. Temperature 104° , pulse 140, respirations 40; urine greatly diminished in quantity; urea increased; chlorides absent; sometimes albuminuria; occasionally complete suppression, with uræmia.

In the second week the characteristic symptoms are, great prostration, muscular twitching, delirium; approach of convalescence gradually begins about the fourteenth day. The most common complications are, bronchitis, pleurisy, pneumonia, diarrhœa, suppuration of the parotid gland.

A fatal termination usually takes place from the twelfth to the twentieth day.

There can be no difficulty in the diagnosis of typhus and typhoid fever—the dullness, stupor, measly eruption, injected conjunctiva, color of skin, constipation, tongue, pulse, are all peculiar to typhus, and are in remarkable contrast to the clearness of intellect; the absence of the eruption, the brilliancy of the eye, the diarrhœa.

Wherever typhus fever prevails there should be the most thorough hygiene, cleanliness, and ventilation, and powerful disinfectants used. The patient, if possible, should be placed in a well-ventilated apartment, and a vessel with chloride of lime kept constantly present; and, if the weather permits, a fire in the room.

If the patient is seen in the incipient stage, give an emetic of lobelia and eupatorium, and repeat, if necessary; then thoroughly cleanse out the bowels with comp. powder of senna and jalap, and bitartrate potassæ, one drachm of each to the dose; an active purge; then a vapor bath, keeping the bowels open with small

doses of the neutralizing mixture, and the body should be sponged every three hours with tepid water, medicated with nitro-muriatic acid—cold to the head; water impregnated with the mineral hydrochloric acid as a drink. This acid has a most salutary effect upon the blood as well as on the whole secreting system—a powerful renewer of life—a preventive to the rapid metamorphosis that is going on under a terribly destructive animal poison.

For the purpose of restoring the assimilative functions of the stomach, producing an intermission, making an effort to mitigate or abort the disease, we are partial to the following, combined in various proportions: sulphate quinine, eupatorin, scutellarin, gelsemin, prussiate iron, carbonate ammonia. If there is great irritability, large doses of hyoscyamus. The only nourishment is brandy and milk; the former, to prevent change or waste; the latter, as food. If the powers of life are low, the brandy should be increased, and white of egg and beef essence also given; and, to give the treatment a fair chance, the food and nursing should be continued steadily both day and night.

The recumbent position should be carefully observed; if there is retention of urine the catheter should be used.

Our best remedies during the stage of convalescence are, the mineral acids, hydrastin, gold thread, wine bitters, phosphorus, glycerine.

ULCERS.—A breach of continuity of surface may exist in a great variety of conditions, and depend upon numerous causes. It may result from congestion or inflammation, and be entirely local in its origin; it may depend upon constitutional causes, as scrofula, syphilis. There are three principal points to observe in the treatment of all forms of ulcers:

1st. *Support.*—Bandage the limb from the extremity upward; above and below the ulcer use strips of adhesive plaster, firm enough to keep the edges from dragging, and cause approximation.

2d. *Pain* must be effectually subdued, for no sore will heal unless its irritability is perfectly exhausted.

3d. *Bland dressing* should be invariably used. To heal an ulcer rapidly, I have found the following good:

Ry.—Infusion of chamomile, Oss;
Nitrate of silver, ʒi.—*Mix.*

Keep applied on pledgets of lint.

If the edges are indurated, destroy them with caustic potassa, or use a lotion of iodide potass. Scrofulous ulcers heal best under an alkaline lotion, as a saturated solution of sulphite soda. A varicose ulcer heals most rapidly under the use of an infusion or ointment of hamamelis.

URÆMIA.—In a variety of diseases, occasionally accompanied by albuminuria, such as cholera, scarlatina and diabetes, the constituents of the blood become changed by the introduction, either of a poison or some other substance. The blood being no longer normal, its elaboration in the kidney will also be modified.

The term uræmic poison is applied to that peculiar kind of poisoning which results from the accumulation of urica in the blood, and its transformation into carbonate of ammonia. The effects of such poisoning are observed in an abnormal action of the two great nervous centres—the brain and spinal cord. There are three forms of uræmic poisoning, as the two centres may be affected separately or unitedly: 1st. That where stupor supervenes abruptly, and where the patient is aroused with difficulty. This condition is soon followed by complete coma, with stertorous breathing, resembling poisoning from opium. 2d. Epileptic convulsions, affecting the entire muscular system, but consciousness remains intact. 3d. Embrace all those cases in which coma and convulsions are combined.

Albuminuria with uræmia may be the result of other conditions besides structural disease of the kidney.

The convulsions which occur during pregnancy and parturition, are occasioned by the pressure of the uterus, and result in renal congestion. Suppression of urine is a common and fatal result of cholera, and of other morbid poisons in the blood.

Uræmia is usually attended with danger, from the decided tendency existing in the brain to take on diseased action. When from paralysis of the kidneys there is a complete suppression of the urinary secretion, and coma and effusion upon the brain occur very speedily.

In such cases, the saliva, the sweat, the pulmonary exhalations, the bile, the gastric and pancreatic fluids, become saturated with a fluid having the appearance, taste and odor of urine. Besides, the liquid effused upon the brain has a characteristic urinous smell.

When the disease results from inflammation of the kidneys the following symptoms present themselves: hot and dry skin, thirst, nausea, vomiting, rapid pulse, tenderness of the abdomen on pressure; swelling and pain in the region of the kidneys; constant desire to urinate, with micturition, causing great pain; urinous taste in the mouth; urinous odor of the sweat; great anxiety and uneasiness.

In cases of total suppression, the symptoms will be still more urgent, with early indications of serious cerebral disorder, as delirium, followed by coma and effusion. When depending upon paralysis of the kidneys, the febrile symptoms may be mild, with no pain or uneasiness in the region of the kidneys or abdomen, and no desire to urinate. The danger, however, may be as great as in the other variety, for fatal oppression of the brain generally ensues if the malady continues more than two days.

Suppression occasionally occurs from the presence of calculi or gravel in the structure of the kidneys, causing a mechanical obstruc-

tion to the healthy performance of their functions. In such cases the foreign bodies are apt to operate by causing inflammation, spasms, induration or ulceration. They give rise to swelling, pains, sensation of weight and uneasiness in the vicinity of the kidneys, numbness of the thighs, retraction of the testicles, abdominal tenderness, tenesmus in micturating, nausea, vomitings, hiccoughs, pain in the lumbar region and in the perineum, pulse full and frequent, difficulty of breathing, sighing, delirium and convulsions.

Uræmia may be distinguished from retention of the urine from the circumstance that, in the latter disease, the bladder is distinct, and rises up above the pubis, presenting, on the pressure of the hand, a firm and resisting body, whereas, in the former complaint, this viscus is empty, falls down below the pubis, and affords no resistance or fluctuation.

TREATMENT.—The only successful treatment consists in administering hydragogue cathartics, baths, and giving nitro-muriatic acid internally. The other points to observe are, to depurate the blood by the kidneys, if their action can be restored, and, if not, the bowels and skin must do the work. The warm bath, hot air bath, and treat the case according to the indications.

URINARY CALCULI.—Calculous affections are of rare occurrence in either very cold or very hot climates—having been very seldom seen, either in the East Indies or in the Northern parts of Europe. Children and old people are but slightly obnoxious to such disorders, as it occurs mostly in persons in the prime of life, and especially in individuals of a gouty diathesis. It is generally observed, that the attacks of calculous affections, like those of gout, are preceded and accompanied by languor of the stomach, nausea, eructation and borborygmi.

Calculi have been found in the brain, lungs, bladder, liver, spleen, gall-bladder, uterus, and the soft parts of nearly every part of the organism.

But, beyond comparison, these are of the most frequent occurrence in the urinary organs. It is reckoned that at least two-thirds of the whole number of calculi originate from lithic acid; this I consider to be a fair estimate; for lithic acid is always present in the urine, and is liable to become hard and form inodorus concretions of a yellowish-brown color.

Chemists have described numerous varieties of calculi. We enumerate the more important.

First.—The lithic or uric acid calculus, which is formed by concentric lamellæ, and present the appearance of a reddish or light-brown color, not unlike wood.

They are soluble in alkaline solutions; but are not dissolved by muriatic or sulphuric acid.

Infusible by the blow-pipe, but may be slowly evaporated, resulting in a white residue of ash remaining.

This form of diathesis prevails in childhood and middle life, and the voided urine is usually *acid*, and the sediment deposited of a red color.

Amorphous lithic sediments appear in two forms: the first is a yellow sediment, which appears in the urine of those whose digestive organs are deranged. It consists of the lithate of ammonia, combined with the coloring matter of the urine.

The urine is mostly acid and clear when passed, but when the urine cools the sediment is deposited, and the addition of a drop of nitric acid causes the deposit of numerous little crystals of lithic acid.

The second variety consists of the lithate of ammonia, deeply colored by an excess of highly carbonized pigment in the urine. The coloring matter has been termed *purpurin*, and always present where there is an excess of carbonaceous matter in the blood. This substance has a great affinity for lithate of ammonia, when that salt is in excess and is precipitated with it.

The deposit varies in tint, frequently the lateritious or brick-dust sediment of fever, gout or rheumatism; but sometimes a pink sediment, which is indicative of organic disease of the lungs, liver, or exhausting suppuration.

Crystallized lithic deposits consist of minute crystals of lithic acid, like cayenne pepper. They do not dissolve by heat, like the lithate of ammonia.

The urine is acid, high-colored, scanty, and of a high specific gravity. Under the microscope they present somewhat the appearance of the rhombic prism.

Second.—The next in frequency to the lithic acid or uric acid variety, are those of a triple combination of phosphoric acid, magnesia and ammonia.

They are of a lightish gray color, indistinctly laminated, with an uneven surface, and covered with small shining crystals, not soluble in alkaline solutions, but partially so by muriatic, nitric and sulphuric acids, and but partially fused by the blow-pipe. The urine is foetid, and the sediment of a white color, like mortar. This form is apt to be reproduced after lithotomy.

Third.—Not so common as the two preceding is the *mulberry calculus*, of a dark-brown color, uneven surface, very compact and hard. It consists of the oxalate of lime, and is slightly soluble in sulphuric and muriatic acids, but insoluble in alkaline solutions.

Fourth.—The phosphate of lime calculus, which usually exists in combination with uric acid and phosphate of magnesia and ammonia. This form is laminated, polished, of a pale-brown color, soluble in muriatic and nitric acids, and may be fused by the blow-pipe. They are of small size, and generally found in the prostate gland.

Fifth.—The cystic oxyd calculus is of rare occurrence, of a yellowish hue, not laminated, soluble both in acids and alkalines, and emitting a foetid odor under the blow-pipe.

Sixth.—The fusible calculus, composed of a mixture of the triple phosphate of magnesia and ammonia, and of the phosphate of lime; of a white color, also fusible by the blow-pipe. Met with between the prepuce and glans penis.

Seventh.—Different kinds of calculi are sometimes deposited in alternate and distinct layers in the same stone, and termed the *alternating calculus*.

Calculi are said to occur more frequently in the male than the female; but this may be due to the difference in the structure of the urinary organs.

The urethra of the female is shorter and easily dilated, and affords an easy passage to gravel and small calculi; whereas, in the male the passage is both long and contracted.

The right kidney is more frequently the seat of such deposits than the left; usually spheroidal in form, and one or two ounces in weight.

Calculi may originate in the kidneys, the bladder or the prostate gland, but the kidney is generally their primary seat.

Calculi of small size may pass from the kidneys to the bladder without much inconvenience, and may either be discharged with the urine, or remain in the bladder, increase in size, and require surgical interference for their removal. While in the renal cavity they may so increase in size as to become too large to pass along the ureter, and are thus retained; under such circumstances a calculus in the kidney may lead to atrophy of the parenchyma, and become as large as the healthy organ.

Calculi not too large to pass through the ureter, but too large to pass with facility, cause, during their passage, more or less pain and constitutional disturbance. The pain commences as the calculus enters the duct and ends when it reaches the bladder.

The paroxysm is like the passage of a gall-stone from the gall-bladder to the duodenum—hepatic colic; that under consideration is termed nephritic colic.

SYMPTOMS OF NEPHRITIC COLIC.—The pain is usually both sudden and severe, and referable to the situation of the kidney—the side of the last dorsal and the first lumbar vertebræ. The pain usually radiates along the ureter, and extends to the groin and thigh. Generally, in the male, there is pain in the testicle, which is drawn up by the contraction of the cremaster muscle. The pain is lancinating or tearing, often causing the patient to groan; the pain is continuous, with, however, exacerbations and remissions; urine is diminished; constant desire to micturate, and passing only a few drops at a time; *tenesmus* of the bladder; and the urine often contains blood.

The constitutional disturbance is manifested thus: there are

thirst, nausea and vomiting; coldness of the surface, with sweating, and feebleness of the circulation; countenance pale and anxious-like; constipation: the pain suddenly ceases; abundant urine is discharged; now the calculus has reached the bladder; but other paroxysms may ensue, if other calculi existing within the pelvis of the kidneys also pass into the ureter.

The composition of a calculus is generally determined by the state of the urine; its size appreciated by its composition, (the phosphatic are the largest,) by the length of its existence, by observing the force required to dislodge it from its position; it may be measured by passing the sound across its surface.

They vary in weight, from a few grains to as many ounces, and in number from one to over one hundred and fifty. The only *positive* indication of a calculus is our ability to *strike it* with a sound introduced into the bladder.

Simple nephritis gives rise to many of the foregoing symptoms, as also do those of inflammation of the prostate gland and bladder.

But the patient can often feel the motion of the calculus as he turns over from one side to the other.

CAUSES.—Often hereditary, being associated with gout, rheumatism, and the sanguine variety of scrofula; errors in diet—sameness of food; imperfect ventilation; want of exercise, and general inattention to hygienic measures, &c.

The lithic or uric acid is one of the forms into which the constituents of the blood are converted by oxydation, in order to their elimination from the system.

TREATMENT.—The treatment of the lithic acid diathesis: strict attention to the quantity and quality of the food; a plain, unstimulating diet—fresh vegetables, ripe fruit—to the exclusion of an undue proportion of oleaginous, or saccharine, or alcoholic substances. Fat sugar, or alcohol, are highly objectionable, because they load the blood with hydro-carbonaceous matters, which prevent the due action of the oxygen on the uric, and its conversion into urea. The promotion of an active condition of the skin, and proper æration of the blood, is of great importance; alkaline baths and vapor baths; friction to the surface.

The portal system must be relieved by podophyllin, jalapin and juglandin.

Alkalines serve various uses: they neutralize acids liable to be formed in the stomach at the close of digestion; they hold lithic acid in solution, and they counteract the diathesis by saline diuretics.

Give queen of the meadow, marsh-mallow, buchu, uva ursi, pipsissewa, parsley-root, with some alkali.

Benzoic acid is very valuable, as it abstracts from the blood a quantity of nitrogenous matter sufficient for its conversion into hippuric acid, and in this soluble form it is readily excreted from the kidneys. Give it in ten grain doses, twice a day, in a glass of

water, alternating with bitter tonics, as quinine, gentian, hydrastin, nitro-muriatic acid, phosphorus.

TREATMENT FOR STONE IN THE BLADDER.—Change the diathesis; attend to the diet; avoid all stimulants, also water impregnated with lime, mental or bodily fatigue, depressing passions; dissolve the stone by suitable remedies, and, if these fail, extract it by some of the operations recommended.

In the phosphatic diathesis, a farinaceous diet, fruits and acids, should be inculcated.

Buchu, uva ursi, cannabis, pipsissewa, bitartrate of potass. and digitalis are excellent remedies during a fit of gravel, accompanied with painful micturition, and slimy, purulent urine.

Stillingia and nux vomica, when resulting from derangement of the digestive organs.

Lycopodium is useful when the urine is of a dark brown color, and deposits a red or yellowish sediment.

Phosphorus in broken-down constitutions; in debilitated patients, cinchona is invaluable.

When the calculus has passed into the bladder, the first point is to remove the irritability of the bladder by sedatives and proper remedies, to render the urine normal, so that there may be no spasm to obstruct its passage into the urethra.

The patient should drink water freely, so that the bladder may be quite full; and, when going to make water, he should lie on his face and grasp the penis, in order to promote a sudden gush that may carry the stone away with it.

UTERINE CANCER.—Cancer of the uterus is of frequent occurrence, and its fatality predominates over the disease in any other locality. It invades the cervical portion of the uterus more frequently than all other parts of the organ, yet it may begin in any portion, the fundus, body or cavity. When it begins at the cervix, it gradually passes upwards to the fundus; or if it begins in the body, it creeps downwards. All the different forms of cancer are met with in the uterus, the medullary, epithelial, colloid, and scirrhus, the first the most common. The enlargement and induration of cancer differs from all other conditions by its being uneven, and thrown out irregularly. If the lips are infiltrated, the elevated points are sharp, angular, and terminate abruptly.

The hardening from inflammatory effusion is less abrupt, the induration terminates by fading away in the surrounding parts. This induration increases for an uncertain length of time, until the cancerous deposit takes the place of the normal tissues, then the nutrition of the parts is disturbed by a destruction of its blood vessels, and sloughing takes place; then we have true cancerous ulceration. The absorbents do not remove the parts, and thus sloughing and denudation takes place. The sloughing causes the

foetid smell. The eating process continues, widens and deepens the chasm, sometimes rapidly, in other cases slowly.

Once the ulcerative stage of uterine cancer sets in, onward it goes until it destroys the uterus and adjacent parts.

Discharges, pain, and foëtor are the symptoms that usually first attract our attention. Pain is often the first symptom—it is a pain that is sharp, lancinating, darting, twinging. The discharge is either blood, or serum, or sloughs—at first it is generally odorless, but afterwards becomes foetid and remains persistently so. With these symptoms we have constitutional disturbance, cancerous anæmia, causing the straw-colored translucency of the skin, debility, indigestion, palpitation, neuralgia, colliquative diarrhœa and aphthæ.

The disease may be hereditary or acquired by depressing passions or influences.

The treatment of uterine cancer is most hopeless, indeed it almost invariably terminates fatally at one period or another—being but the local development of a blood disease. The only really curative measures are constitutional means—alterative remedies to defend the patient against the rapidly prostrating influence of the disease. Locally the caustic potassa should be used to destroy the diseased part. Afterwards pain, smell and debility should be attended to. Belladonna, cicuta, hyoscyamus, and Indian hemp may all be used locally for the pain, introduced into the vagina in the form of a bolus or injection, about ten grains of the extract of hyoscyamus, slightly diluted, and thrown into the vagina by a small syringe, and allowed to remain, the patient lying on her back for a length of time. Twenty drops of hydrocyanic acid to a pint of water, passed through the vagina, has a very pleasant effect.

Indian hemp is our best remedy for internal use, relieves more frequently than opium. Opium, in the form of subcutaneous injection, is a blessed remedy.

The hemorrhage of uterine cancer requires prompt interference, because the bleeding is ultimately exhausting and often dangerous. The introduction of ice into the vagina in small pieces is very grateful to the patient as an hemostatic. Perchloride of iron or carbolic acid, in a form suitable for injection, is excellent; but if remedies fail, the tampon.

The offensive odor emanating from the disease renders it indispensable to correct it with good ventilation; chloride of lime, carbolic acid exposed in the apartment. Injections of permanganate potassa, $\frac{\text{Si}}{i}$, to a quart of water thrown up the vagina three times daily.

Internally, the fluid extract of frostwort and iodide potass.; or fluid extract hydrastis, corydalis and tag alder—vegetable alteratives to change the diathesis. Stillingia, gold, kalmia, iodine. The best bath is the nitro-muriatic acid; the one that is most likely to produce a change. It should be used at least three times a week. The various tonics, as cinchona, phosphorus, nux vomica,

hydrastis, should be used to meet indications. The bowels should be regulated, the stomach toned up, and the best diet should be given. But means will avail little if the disease is perfectly established, and the vital forces so overpowered with diseased blood, that their function is impeded or paralyzed.

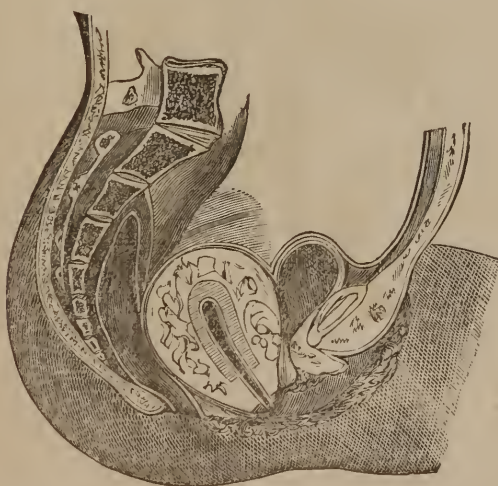
In uterine cancer, the terchloride of carbon is a specific remedy; it stimulates the brain and nervous system; it alters or changes the character of the blood, renders it pure, vivifying—imparts tone to the whole system, and eradicates the diathesis.

From eight to ten drops in a little water every three hours, and a sponge wet with the following in vagina: *R*.—Water, $\mathfrak{z}\text{iv}$; terchloride, $\mathfrak{z}\text{i}$.—*Mix*.

It is an anodyne of considerable power, and, take it all in all, is the best remedy ever discovered to overcome the cancerous diathesis.

UTERINE DISPLACEMENT.—This consists in the falling down of that organ, by the weakening of its membranous supports, or by the pressure of the viscera above, or both.

Probably the great source or cause of uterine displacement is our hot climate, producing relaxation; the great frequency of inflammatory conditions of the uterus and its appendages. The abnormal mode of life of our modern females, tight lacing, the pressure of



A side view of the Viscera of the Female Pelvis showing Prolapsus of the Womb, the Bladder with canal of the Urethra, Symphysis Pubis, Lumbar Vertebra, and upper portion of Rectum.

heavy petticoats, constipation. These and a hundred other like causes, acting together, press the uterus down into the vagina until it appears externally, as in the foregoing cut.

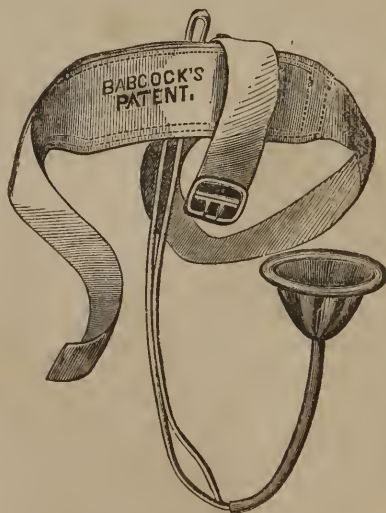
As nearly all our females are exposed to some of the causes of prolapsus uteri, nine in ten have the complaint. Even young ladies, eighteen or twenty years of age, have falling of the womb. Few escape it, for very few women are entirely well.

Whatever exhausts vitality in a woman, may be a cause of prolapsus uteri. Perfect health and vigor, if it were compatible with the present dress and mode of living, would do much to prevent it; but we cannot talk of perfect health and vigor until our modern female is regenerated and reformed; until she is emancipated from her follies.

To cure prolapsus, every cause must be removed; the patient must live aright, dress according to nature's laws; refrain from all causes of exhaustion, observe all the requirements of health. There is seldom prolapsus without some complaint, as debility, and the patient should have invigoration. There is seldom prolapsus without nervous sensations, pain, dragging sensation in the back; a sense of oppression.

This condition is frequently accompanied by anteversion or retroversion.

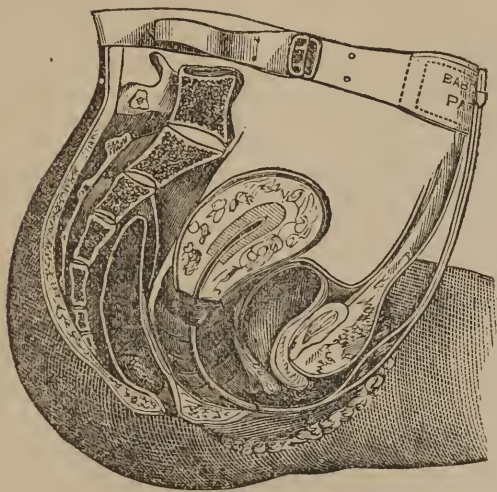
The general treatment is, to remove all causes, as leucorrhœa, or any uterine or constitutional derangement; then sitz baths, the



Dr. L. A. Babcock's SILVER UTERINE SUPPORTER, for the cure of Prolapsus, Retroversion and Anteversion.

frequent use of the vaginal syringe; and, if the case is so bad, mechanical support. The best form of support that I have used of late years, is Babcock's Uterine Supporter, as in the above cut.

The following wood cut shows the instrument applied:



A side view of the Female Pelvis, showing the application of DR. BABCOCK'S UTERINE SUPPORTER, holding the Prolapsed Uterus up in its place without interfering with any other organ.

I have succeeded well with the use of this instrument in radically curing all forms of prolapsus. I use, in connection with it, vaginal injections of cold water, medicated or otherwise, and never fail in curing it in from three to four months.

UTERINE POLYPUS generally occurs during the period of sexual activity, or, if they be developed at a later period, they may still have originated some time previous to it. It is frequently very difficult to ascertain the causes which either predispose or excite their formation; but there is reason to infer that inordinate excitement, or determination of blood to the uterus, with a predisposition to hypertrophy of one or more of the tissues of the organ, are the chief causes of such lesions. These polypi belong to a peculiar class of tumors, whose characteristics are mostly dependent on the mucous membrane to which they are attached, and consist of a fleshy, pedunculated, morbid growth, and generally originate from a small pedicle.

There are four varieties, viz: 1. Mucous polypi; 2. Follicular polypi; 3. Complex polypi; and, 4. Fibrous polypi.

1 **Mucous polypi** consists of excrescences from the folds of the arbor vitæ, are of frequent occurrence, and vary in size from a third of an inch to nearly an inch in length, to about three or four lines in thickness. They are connected with the mucous or villous membrane of

the canal of the cervix by a very slender and short pedicle; they are of a bright rose-tint, supplied with a delicate net-work of vessels, and consist of mucous membrane, with a small admixture of cellular tissue, internally. They may arise from any part of the cervical canal, but are more frequently met with nearer the external than the internal os uteri. They are generally pediculated, but sometimes sessile, and in a few cases they appear as hypertrophied folds of the arbor vitæ. There may be only one, or two or three, existing in the same patient, and, being removed, they may be reproduced in a few months afterward. They have been known to have attained the size of a fig, flattened in shape, and hanging down beyond the os uteri into the vagina. They have been observed coexisting with fibrous tumors of the uterus, and to have been the precursors of malignant disease.

2. Follicular polypi are formed from enlargement of the follicles of the cervix; although not occurring so frequently as the former variety, are not uncommonly met with. They present the appearance of *cysts*, about the size of a pea, imbedded between the folds of the arbor vitæ, and scarcely projecting beyond the level of the canal. They are sometimes much larger, more or less numerous, and distended by albuminous matter. When thus numerous and large, they cause the absorption of the cervical canal, even occasioning the bulging outward of the structure of the cervix.

3 Complex polypi, more frequently than either of the foregoing, consist of mucous follicles, the mucous or villous surface, and fibro-cellular tissue of the cervical canal. They are either pediculated—the pedicles being of considerable length, but occasionally very short—or they present the appearance of continuous tumors or growths from the inner surface of one or other of the lips of the os. When divided, they are observed to contain a tenacious, transparent, albuminous matter, identical with that secreted by the nabothian glands. If small, they chiefly consist of cysts filled with this matter; when larger, these cysts, or vesicles, are not so well marked, but exist in the form of canals, longitudinally arranged, between which a fibro-cellular tissue enters, more or less abundantly. Their surface often presents an uneven, or tubulated appearance, is generally not very vascular, and composed of a dense cellular tissue, covered by a thick layer of tassellated epithelium.

TREATMENT.—The smallest may be removed by laying hold of them with a pair of long forceps, and twisting them off, while those which are larger, after being twisted to check the risk of bleeding, may be cut off by a pair of scissors. The bivalve speculum should be employed in doing this, and both forceps and scissors are made for the purpose, so constructed as to be readily worked within the speculum.

For the sessile growths, or tumors, the free use of caustic potash will destroy them; only apply vinegar freely afterwards.

4. Fibrous polypi are the most serious organic diseases of the

uterus, and, perhaps, the least amenable to treatment, as, also, uncertain in their rates of progress—being in some cases rapid, in others slow, and in a few instances nearly completely cured by the efforts of nature, which either throws off the morbid structure from the organ in which it is seated, or stops its growth. They vary greatly, both in their structure and seat; they may arise from the internal surface of the uterus, underneath the internal membrane, or, less frequently, from either lip of the os uteri.

Fibrous polypus is nearly identical with other fibrous tumors of the organ, and differs only in being developed immediately underneath the internal membrane, or in having more or less of the fibrous structure of the womb interwoven with or covering it. It is pediculated, and more vascular than other tumors of the organ. The pedicle is composed of uterine fibres, mingled with more or less dense cellular tissue. A layer of uterine substance is continued a short distance from the pedicle along the tumor, in some cases, or invests it in part or altogether in others. In addition, the polypus is always covered by the internal membrane of the uterus, which becomes firmer and denser than natural, both it and the fibres of the womb being developed with the growth of the tumor. These tumors are generally single, but sometimes double—very rarely more numerous—of different sizes, and occasionally very large. They are either enucleated from their coverings, or their substance may be intimately connected with their envelopes. The vascular supply of these tumors, through their pedicles, is generally small in proportion to their size, and the quantity of blood in their substance. The comparative small supply of blood, the profuse hemorrhages they occasion, and the arrest of the hemorrhage, by ligatures around their pedicles, have rendered it very difficult to determine the actual source of hemorrhage.

These polypi influence the uterus according to their situation; if they arise low down, or in the cervical canal, the tumors soon grow beyond these limits, and, passing down into the vagina, may acquire a considerable size without disturbing the uterine functions; if they arise high up, near the fundus, they often remain until they have acquired a great size, occasioning enlargement of the organ and thickening of its walls, as in pregnancy. In many cases, before, or soon after the tumor has reached the size of an orange, the os uteri gradually dilates, allows its passage through it, and embraces its pedicle. This sometimes results without much suffering, but at other times violent uterine action is excited by the tumor, which recurs at intervals, and resembles the pains of labor. The polypus is thereby extruded from the uterus into the vagina, and the irregular contractions of the uterus may drag down or invert the organs. The polypus is generally detected soon after it has passed into the vagina; but if not, it soon acquires a large size. They may present œdema of their substance, extravasation of blood into their structure, and, having passed into the vagina, they may undergo

ulceration—especially if air comes in contact with them—or even sloughing. When they are detached spontaneously, or by means which produce firm contractions of the uterus, their pedicles give way, and the whole mass is thrown off.

SYMPTOMS.—Leucorrhœa, hemorrhage, bearing down, enlargement of the uterus, and irritations in bladder, rectum, &c. When these symptoms are present, a vaginal examination should not be delayed. If the polypus has not passed the os uteri, the diagnosis becomes difficult. In these circumstances, the uterine sound becomes necessary.

TREATMENT.—The bi-borate of soda is sometimes given with the view to excite vomiting, and occasionally succeeds.

A far more successful agent is ergot, in two drachm doses, repeated a few times, if necessary. It seldom fails to produce slight uterine pains, nausea and vomiting—the pains increasing as the medicine is repeated, until at length the polypus may be completely expelled.

TREATMENT.—Enucleation has removed both polypi and fibrous tumors, which were not pedunculated. This is effected by passing the fingers up the passage, and allowing the nail of the index finger to manipulate and lacerate the tumor. In some cases it will be necessary to use a blunt-pointed bistoury, passing it along the forefinger; make a vertical incision, slowly and cautiously, over the tumor, until the finger is enabled to be insinuated beneath the envelope, to complete the enucleation. In some cases enucleation will be performed more readily by substituting a spatula for the finger.

LIGATURE.—By means of the double canula, a loop of a wire ligature may be drawn tight enough to strangulate the tumor, thus:

OPERATION.—Place the patient on her back, with the knees drawn up; introduce the speculum so as fully to dilate the vagina; observe the position of the os uteri, and pass the canula and loop of the ligature over the polypus to the mouth of the uterus by means of a probe, so as to place the loop as high up as possible. While an assistant retains the loop in position by means of the probe, draw upon the wire so as to strangulate the tumor, and leave it to slough off; tighten the ligature from day to day, by means of the screw of the instrument. Should the hemorrhage be profuse, it may be checked by the application of the tampon, or the use of astringents.

Excision of polypi may be accomplished by seizing them with forceps, and removing them either with the bistoury or scissors.

UTERINE HEMORRHAGE.—Uterine hemorrhage can generally be easily arrested by exciting reflex contraction of the uterus. Reflex contractions may be excited by stimuli in various ways: thus,

by stimuli applied to certain organs at a distance from the uterus; by stimuli applied to certain other organs and surfaces in the vicinity of the uterus; and lastly, by stimuli applied to the uterus itself.

Instances under the first division of excitors to contraction are the mammary nerves, as called into exercise when the child is put to the breast, the pneumogastric when food, or drink, or emetics are taken into the stomach, and the abdominal intercostal nerves—which latter, or the cutaneous nerves of the abdominal parietes, are excitors of the uterus in an extraordinary degree. Sudden impression of cold or heat upon the abdominal surface seldom fails to excite a most powerful contraction of the uterus affected with inertia, and where hemorrhage is taking place.

So, by the application of cold to the abdomen, we may contract the relaxed uterus to a firm ball; or, if the surface of the abdomen should be cold, the sudden impression of heat will effect a similar result.

Irritation of the vulval, vaginal, vesical, or rectal nerves, induced by the application of cold to those parts, will have the same result.

Those parts are contiguous to the uterus, and are, more or less, supplied by nerves having the same origin as the uterine nerves; but these actions are *reflex* in their nature.

The contraction of the uterus and the arrest of hemorrhage by irritation of the uterus itself, through the medium of stimuli applied to them.

The uterine nerves—by various modes we can exert great power over the uterus; we may excite the nerves of the external surface of the uterus, the nerves of the internal surface, or the nerves of the os uteri.

We have illustrations of these three modes of uterine contractions; thus, by irritating the uterus through the abdominal surface, we act on the first series of nerves; by injecting cold water into the uterine cavity, we act on the second; and by irritating the os uteri by digitation, we act on the third. The organ may be excited by introducing ice into the cavity, by injecting cold water into the cavity, or by injecting stimulating solutions.

The different modes of arresting uterine hemorrhage mechanically, are too well known to require any description of them being made here; and the same may be affirmed respecting the action of *secale cornutum* and *ippecacuanha*.

But *erigeron*, though quite extensively used, is not so well appreciated by the profession as it should be; it is a positive, powerful and direct hemostatic to all mucous surfaces; acting chiefly through the nerves, causing the stimulus of contractility, and at once arresting the hemorrhage.

UTERINE ULCERATION.—As a frequent result of inflammation of the uterus, more especially about the neck, we have ulceration, in various forms. This condition is most difficult to cure. The following I have found to be successful in treatment. Expose

the ulcerated parts with a speculum. Take a camel's-hair pencil-brush, and touch the ulcer with diluted caustic potassæ, made strong or weak, according to the extent of the ulceration, then an injection of vinegar. The patient should maintain the recumbent position; an enemata of water, rendered mucilaginous with slippery elm, should be used. The bowels should be regulated—the condition of the stomach improved, and the patient put upon iodide potass. and comp. syr. stillingia.

If the case is a bad one, I have derived benefit from suppositories of iodide of lead ointment at bed-time, and injections of permanganate potass. during the day.

Injections also of equal parts of fluid extracts of hydrastis, witch hazel and white pond lily; a tablespoonful of each to a quart of water, very efficacious after the cauterization.

Under this plan, the leucorrhœa, menorrhagia, the pelvic and sacral distress, ovarian irritation, &c., will rapidly disappear.

URINE.—Healthy urine is transparent, of a citron-yellow color, of a peculiar odor, and of an acid, saline and slightly bitter taste. When voided some time after taking fluid, it is less colored, and less odorous and dense than that which is voided several hours after eating, after the digestion of a good meal. That secreted independently of the immediate stimulus of either food or drink presents the essential characters of urine.

Physical characters of normal urine.—Average quantity is, under ordinary circumstances, about thirty ounces, during the twenty-four hours, in summer, and forty ounces in winter. Normally, the lungs and skin, abnormally, the intestinal canal and serous membranes, may supply the functions of the kidneys in evacuating the water of the urine; but, as the secretion of water is merely accessory, not essential to their function, so our chief attention must be paid to the relative proportions of the different solid constituents of the urine. These may normally vary from eight hundred to one thousand grains in twenty-four hours for the man who lives freely, but less for the aged, and for women and children, whose urine is more watery.

Aqueous urines, when not accounted for by the quantity of fluids imbibed, or by the chill and moist state of the atmosphere, are sometimes indicative of emotional agitation—of joy, fright, grief, or of nervous disorders—and occur oftenest in females. Polydypsia, anæmia, diabetes and hysteria, are diseases in which the urine is most aqueous.

The specific gravity of urine, after drinking freely of fluids, is about 1.003 to 1.009; after the digestion of a full meal, 1.020 to 1.028; and after a night's rest, 1.015 to 1.025.

Composition of urine.—When we consider the diverse circumstances which are in constant operation to modify the composition

of urine, it will not appear surprising that chemists have presented us with analyses more or less differing the one from the other.

The urines of the claret-drinking Frenchman, of the beer and gin-drinking Englishman, of the lime-water-drinking Yankee, and of the fruit-consuming denizens of the tropical climates, must, of necessity, present great diversity in chemical composition. Even under any circumstances, the variety of food and drinks, atmospheric changes, habits of exercise, mental emotions, continual modifications are occurring in the composition of the urine. Nevertheless, a carefully conducted analysis furnishes a near approximation to the actual result. The following is a statement of such an analysis, 35 ounces of urine of specific gravity 1.020:

Composition of 1,000 parts of urine.		
Water,	- - - - -	967
Urea,	- - - - -	14.230
Uric acid,	- - - - -	.468
Organic matters, inseparable from each other,	{ Lactic acid, Coloring matter, Extractive matter, }	10.167
Salts, { Chlorides, Phosphates, Sulphates. }	{ Ammonia, Lime, Soda, Potash, Magnesia, }	8.135
		1,000,000

Urea is the most abundant of the solid constituents of healthy urine, and forms about $\frac{80}{100}$ part; its appearance and taste resemble nitre; it is an organic base; is readily soluble in water, but insoluble in ether. It readily results from the transformations of various azotised matters, and, when not removed by the kidneys, it accumulates in the blood, and appears in the saliva, the bile, the gastric secretions, in most of the humors, and is so abundant in the sweat as to form, after spontaneous evaporation, a bluish-white crust, especially upon the face.

The quantity of urea is increased by all causes which determine rapid metamorphoses of the tissues. Its prolonged retention in the blood gives rise to uræmic poisoning. Uric acid is insipid and inodorous, almost insoluble in cold water, quite insoluble in alcohol and ether. In combination with one or more bases—ammonia, soda or lime—uric acid forms one of the most common sediments of the urine. Being insoluble in the blood, it can only exist in this fluid as an urate—chiefly urate of soda—and is separated by the kidneys, passes to the pelvis of the kidneys, to the bladder, and thence out of the body as a urate of soda; but, during the passage of the latter through the urinary organs, portions of it are often decomposed, and uric acid set free by the free phosphoric and lactic acids of the urine. Such decomposition may occur in the kidney, in the bladder, or after emission.

Fixed salts of the urine.—Of these the sulphates of potassa and soda are most abundant. The average quantities of each in 1,000 parts of urine are as follows: sulphate of potassa 3.71; sulphate of

soda 3.16. A small quantity of pure sulphur is also present in most healthy urines. They are derived, in part, from the metamorphoses of the tissues. Healthy urine also contains salts of the phosphates of soda and ammonia; about 2.94 of the former, and 1.65 of the latter, in 1,000 parts of urine. Traces of phosphates of lime and magnesia are also always present in normal urine. Free phosphorus is said to be a constant constituent of healthy urine. It is derived chiefly from disintegrated muscular, brain and nervous tissues, and from food and drinks, augmented by mental activity and cerebral irritation.

Chlorides.—These are in the form of chloride of sodium and potassium; the proportion of the former being 4.45 in 1,000 parts of urine, and of the latter only a trace. The following substances are, likewise, found in minute quantities in all normal urines: silica, free lactic acid, fluoride of calcium, hydrochlorate of ammonia, acetate of ammonia, albumen, gelatine and benzoic acid.

As a knowledge of the chemical composition of urine is of indispensable value for the diagnosis and prognosis of numerous forms of disease, especially as far as concerns the presence of matters which are not found in the normal state of urine, we shall now briefly describe the more important reagents that are employed for the detection of the various constituents that enter into the composition of abnormal urine. But, prior to resorting to chemical tests for particular substances suspected in the urine, it is always expedient to examine its physical properties, such as its color, odor, density, &c. The characters of the cloud or precipitate formed after the urine has been allowed to remain at rest for some time, and its morphological constituents, determined by means of the microscope, should be carefully observed. Such observations may lead to a correct diagnosis; any how will certainly direct the path we should take in the subsequent chemical investigation of the fluid.

The specific gravity of the urine is at once obtained by means of a urinometer, and should be noted at the commencement of the examination, as it furnishes important indications for further proceedings. Thus, the specific gravity is generally diminished in chronic cases of Bright's disease, and increased in cases of diabetes.

TESTS.—*To detect albumen in the urine.*—A small quantity of the urine is to be heated until it boils, in a test-tube, over the flame of a spirit lamp. As soon as the temperature of the liquid becomes raised to over 170° Fahrenheit, the albumen will become coagulated, and, if the test tube be set aside for a time, it will become deposited, when it may be collected, dried and weighed. The precipitated albumen is soluble in a solution of potash, but insoluble in nitric acid. But there are certain sources of failure and fallacy attending the detection of albumen in the urine which must not be overlooked. Thus, if earthy phosphates be present in excess, they will become precipitated as soon as the urine is boiled. As this precipitate somewhat resembles albumen, it might be mistaken for

it. It is, however, distinguished by its *solubility* in nitric acid. Again, when urates are in great excess in the urine, a white precipitate of uric acid is occasioned on the addition of nitric acid, which might also be mistaken for albumen. This condition I have observed in a few cases of typhus fever of low type and of small-pox. This precipitate is distinguished from albumen thus: the addition of hydrochloric acid to a second portion of the urine will occasion a precipitate equally with the nitric acid, if it be owing to uric acid, but no precipitate will ensue if albumen be present.

A precipitate likewise occurs when nitric acid is added to the urine of a patient who has taken copaiba or cubebs. This at first closely resembles albumen. It is distinguished from albumen by its not subsiding as a distinct deposit, and by its producing a permanent opacity of the urine. But albumen may be present, and yet not precipitated on boiling. This occurs whenever the urine is alkaline, the albumen being kept in solution by the alkali. In this case, it is necessary first to acidify the urine with nitric acid, and then to boil; but nitric acid in excess precipitates albumen from the urine, as well as heat. It is, therefore, best, in most cases, to test both with nitric acid and heat, and it is always proper to ascertain whether the precipitate, which appears on boiling, is soluble in excess of nitric acid or not.

In employing nitric acid, the reagent should be added in excess, as it sometimes happens that the albumen first thrown down is redissolved; but, when an excess of acid is used, the albumen is thrown down permanently, and is not redissolved. The quantity of albumen in urine varies greatly, from a mere trace to some grains in the ounce; and according to the quantity present, will be the appearance of the urine on the application of heat. If the quantity be very small, the deposit may be so trifling as quite to escape detection, until the test-tube be set aside for some hours, so as to allow of the subsidence of the deposit. In this way the presence of a very minute quantity of albumen will be detected. When only a trace of albumen exists in the urine, it is best to take a very large test-tube, and to boil some six or eight drachms of the urine.

Albumen is also precipitated by dilute hydrochloric acid, ferrocyanide of potassium, bichloride of mercury, alcohol, creasote, tannin, and numerous other substances. Strong hydrochloric acid does not precipitate albumen, but, when warmed together, a purple-colored solution is found.

To detect fibrin.—Fibrin is distinguished from albumen by its undergoing solidification when effused from the blood-vessels. It usually occurs in the urine in connection with blood, but not always so. Sometimes it exudes from the blood-vessels of the kidneys, and solidifies in the renal tubes in the form of casts. In rare cases, the effused fibrin does not solidify until after the urine has been voided.

When the fibrin solidifies in the kidneys, the casts are usually met with in the urine. Then, whenever these casts are observed

under the microscope, or the urine becomes at all gelatinous on cooling, and this whether it contain blood or not, fibrin is present. Now, almost invariably, albumen is voided at the same time with the fibrin. Whenever, therefore, the latter is present, the former is almost sure to be found in the urine.

To detect bile in the urine.—When bile exists in considerable quantity in urine, its presence is sufficiently indicated by the color of the urine. This is especially the case in jaundice, in which the urine possesses a dark yellowish-green or brown color, which is exceedingly characteristic. When the quantity of biliary matter in the urine is less, its tint is only deepened, and rendered of a brown or reddish hue. In these cases, it is necessary to seek for the presence of bile, for which there are several tests. One of these consists of sulphuric acid, free from sulphurous acid and sugar. It is used thus: to a small quantity of urine, in a test-tube, about two-thirds of the bulk of sulphuric acid is to be added, drop by drop, so that the temperature of the mixture may not be raised above 144° Fahrenheit, at which the color characteristic of bile is destroyed. To this mixture a grain or two of syrup or sugar is to be added, the whole shaken, and then allowed to stand at rest for a few minutes. Should bile be present, the liquid will assume a more or less intense red color, with a tinge of violet. This remarkable development of color equally takes place when the above reagents are added to a solution of decolorized bile. If the suspected urine contain albumen, this should be removed by coagulation and filtration; because, with albumen, sulphuric acid and sugar, a similar color is developed. Should the quantity of bile present be very small, the urine should be evaporated to dryness on a water-bath before the test is tried, and the bile dissolved out by means of a little water or alcohol.

Another test for bile is the following: a little white of egg is added to a small quantity of the suspected urine, and, after the mixture has been well shaken, a few drops of nitric acid; this effects the precipitation of the albumen, in combination with some of the coloring matter of the bile, the precipitated albumen thereby assuming a dull-green or bluish color.

A third test for bile in urine depends upon the action of nitric acid upon the brown coloring matter of the bile, called biliphœin. Two or three drops of nitric acid are to be allowed to fall upon a little of the urine, spread out in a thin layer on a white surface. If there be any considerable amount of bile present, the mixture assumes a variety of changing and evanescent tints, green, violet, yellow and pink, the latter color usually predominating. Should the quantity of bile present be very small, the urine must be evaporated before the nitric acid is added, as mentioned in a previously described test.

To detect chyle in the urine.—Urine containing chyle is usually more milky or opalescent than when it only contains oil. All the usual elements of chyle will, ordinarily, be detected in chylous urine,

when examined chemically and microscopically. The albumen is to be detected after filtration of the urine by coagulation in the ordinary manner. If oil be present, it may always be obtained by agitation with ether. Chylous urine, when first passed, and still warm, does not present the same degree of opacity and milkiness which it acquires when it becomes cold. This depends on solidification both of the fatty and fibrinous matters present. If the quantity of chyle present be very considerable, the urine will sometimes acquire a gelatinous or semi-solid consistence, owing to the coagulation of the fibrinous elements.

To detect sugar in the urine.—The tests for sugar are quite numerous, but the following are a few of those most reliable: boil the urine for five minutes, in a tube, with half its bulk of liquor potassæ. If sugar be present, the liquid assumes a brownish bistre color.

Another test consists in adding a few drops of a solution of sulphate of copper, so as to give the urine a pale blue color; liquor potassa is then added, until the hydrated oxide of copper thrown down is again dissolved, which will happen if the urine be saccharine. The clear, deep-blue solution which is formed must now be boiled; when, if sugar be present in small quantity, it will be indicated by the mixture assuming a yellowish-red, opalescent tint; but, if in large amount, by its becoming perfectly opaque, from the formation and precipitation of the yellow suboxide of copper. If the urine contain no sugar, a dark-green precipitate only is formed on ebullition.

Another test, which is very simple, consists in adding a little carbonate of soda and a small quantity of magisterium bismuthi to a small portion of the urine: the whole are boiled briskly together; as the liquid cools, if sugar be present, the bismuth is reduced, and forms a black powder.

Another test consists in adding a few drops of yeast to urine, and a test-tube completely filled with the mixture, inverted, and allowed to remain in a saucer, containing a little more of the urine. The whole should then be put in a warm place of about seventy or eighty degrees for twenty-four hours. Fermentation ensues, and carbonic acid is formed, which collects at the top of the tube, displacing the fluid.

Still another test consists in dissolving a small quantity of ox-gall in the suspected fluid in a test-tube; then add rapidly an equal quantity of strong sulphuric acid. If sugar is present, a beautiful purpurine is immediately produced.

To detect chlorides in the urine.—Add to the urine, in a test-tube, about a sixth part of its bulk of strong nitric acid, and then a few drops of a solution of nitrate of silver. If any soluble chloride be present, the chlorine will be thrown down, in combination with the silver, as a white precipitate; but, if none exist, the fluid will remain clear. From the degree of turbidity occasioned by the

addition of the silver solution, an estimate may be made of the amount of chlorides contained in the urine.

Test for pus.—About 5ij of urine and 5j of liquor potass. to be placed in a test-tube and heated, when, if pus be present, there will be a viscid, gelatinous-like semi-fluid found at the bottom of the tube, or, rather, appearing as a substrata of the contained fluid.

Detection of seminal fluid.—Occasionally a mucus-like deposit occurs in urine, which, on examination with the microscope, is found to be semen; this is manifested by the presence of the well known seminal animalcules and corpuscles. The animalcules are nearly always dead, owing to the length of time which usually elapses before the urine is examined, and to the injurious action exerted upon them by the urine itself. Spermatic animalcules are occasionally seen in urine in small number where there is no visible deposit.

URTICARIA—A non-contagious affection of the skin, generally due to derangement of the digestive organs; sometimes connected with rheumatism or uterine irritation, dentition.

In whatever condition we meet this disease, the following treatment will be successful: give an emetic of wine of lobelia every third day, a tepid alkaline bath; if there are any febrile symptoms, aconite. Then put the patient upon six-drop doses of hydrochloric acid, in some bitter infusion, every four hours.

VARICOCELE.—Where we have a varicose condition of the veins of the spermatic cord from any cause, nothing can excel the hamamelis in the way of cure. It is true, the cause must be removed, and when the internal and local use of this remedy is brought to bear on the system, a cure is rapid. Varicocele is very common, and the left side much more obnoxious to take on this condition, from the greater liability of a distended colon. The diagnosis is easy; the swelling; the distended veins can be rolled under the fingers like a bag of worms; weight and aching about the groin and loins; uneasiness about the scrotum; neuralgia and atrophy of the testicle. The patient should wear a suspensory bandage, and, inside, a cloth saturated with the hamamelis, renewed three or four times daily. The ordinary fluid extract answers well, although I prefer Pond's extract, reduced about one-half by water; the same given internally, in from ten to thirty drop doses, every three hours. It is indispensable that the bowels be regulated; the general health improved by tonics.

VERTEBRAE.—Children are very liable to disease of the vertebræ; young and spongy bones, abundantly supplied with vessels, most readily become carious.

Sometimes the periosteum is first involved; and sometimes the

disease commences in the substance of the bone; the softened portions of the bone frequently become infiltrated with a sanious fluid, and thus form ulcerated or fistulous cavities, containing puriform matter; these cavities make their way to the surface of the bone, and thence to more external parts. The vertebræ being composed of a soft, spongy texture, are more liable to caries than bones, which are more dense in structure.

This disease is generally associated with a scrofulous diathesis; in such cases the cancellated bodies of the vertebræ are generally the seat of the malady.

It may, however, appear in weak or cachectic constitution, without tubercles. Inflammation having set in, it may continue awhile without giving rise to any severe symptom, afterwards the motions of the spine cause thickening or swelling of the fibrous membrane covering the bones, which, with the products of the inflammation thrown out within the spinal canal, produces pressure or irritation of the cord, or of the roots of the nerves—resulting in spasmodic or paralytic symptoms, and softening of the bodies of the vertebræ. The osseous structure thus softened, yields to the weight of the superincumbent parts of the bone; thus caries takes place.

The most *exciting causes* of this affection are exposures to cold, external injuries—as blows, sprains, sudden jerks or twists, and over-exertion of the muscles, in attempting to lift heavy bodies.

Diagnosis.—Not easy in the early stage, and before it becomes apparent, for pain is not always present; must be guided by the history of the case.

Treatment.—This depends greatly upon the causes and circumstances originating the disease; endeavor to remove the local disease and rectify any constitutional taint.

The different preparations of phosphorus, lime, and iron are useful; also albumen, essence of beef. Where much debility, wine bitters, comp. tincture tamarac or cinchona. If occasioned by mercury, then iodide potassium, comp. syr. stillingia and iodine baths.

VESICAL INFLAMMATION.—Commences like nephritis, with shiverings or chills, pain above and behind the pubes, increased by frequent micturition, by fever. Pulse frequent; skin, hot and dry; anxiety; thirst; scanty high-colored urine; nausea; vomiting, and constipation. Continual burning sensation in the bladder and great difficulty and pain in micturating; only passing very slowly, or it may be drop by drop. A feeling of tension and fullness over the pubes, from distension of the bladder extending over the hypogastric region. In severe cases there are acute pains in the loins, ureters, perineum and anus, with swelling of the abdomen; difficulty in voiding the fæces, from a sympathetic inflammation of the rectum; rigors, cadaverous expression, cold extremities, delirium and convulsions.

Death occurs in about a week or early in the second week from gangrene of the bladder.

In milder cases, the symptoms gradually subside, and the inflammation terminates in resolution; but when suppuration occurs the urine becomes turbid and colored.

When the whole inner surface of the bladder is involved, the urine is tinged with blood accompanied with severe pain and throbbing. Its terminations are, chronic inflammation of the bladder, resolution, suppuration, or gangrene.

CAUSES.—Sometimes mechanical, as blows, falls, concussions, an improper use of the catheter, use of instruments during parturition, gravel, stone, gonorrhœa, stimulating injections into the urethra, suppression of the menses, exposure to cold after being heated, inflammation of contiguous structures, &c., &c.

TREATMENT.—I have had the best success with aconite and gelsemin, in the treatment of acute inflammation of the bladder, giving them until the circulation was thoroughly controlled, warm poultices over the region of the bladder. Elm tea as a drink. Pain must be effectually subdued with large doses of hyosciamus.

Chronic inflammation of the bladder, or cystirrhœa—catarrh of the bladder.

SYMPTOMS.—Frequent urgency to void urine, with pain in the bladder and at the extremity of the urethra. Tension of the hypogastrium from increased sensibility of the bladder, or on distension from urine; greatly augmented quantity of mucus, and of an unnatural appearance. The mucus at first pellucid or gray, becomes yellowish, then greenish, and sometimes streaked with blood, when ulceration has set in, largely mixed with pus. This is the grand characteristic of the disease.

The quantity of the mucous discharge is often very great, amounting in some cases to several pints daily.

The symptoms otherwise are those of acute cystitis, only less severe. When the disease advances, the pains increase and extend to neighboring parts, such as the anus and down the thighs; the mucus gives place to pus; general strength diminishes; rapid emaciation ensues; and the patient sinks in a hectic state.

PATHOLOGY.—The pathological changes are chiefly an injection of the mucous membrane; enlargement of the veins, and the muscular coat is frequently thickened, contracted, and of a firm consistence.

CAUSES.—These are numerous, a result of fevers; exposure to damp and cold; but more frequently from calculus in the bladder and enlargement of the prostate gland. It occurs much more frequently among the old and in males, than among the young and in females. Induced by the abuse of alcoholic drinks; and the scrofulous and gouty are especially obnoxious to it.

PROGNOSIS.—In the early stage, under proper treatment recovery may be expected; but after suppuration has been established the case is not so hopeful, but with due care and appropriate treatment

recovery may be effected. Cases continuing and becoming gradually worse until gangrene sets in and terminates fatally.

TREATMENT.—If there is any febrile disturbance it should be controlled in the same way as the acute, but otherwise the treatment should consist in throwing injections into the bladder of water medicated with nitric acid.

Irritability of bladder.—This affection is the sequence of a long protracted inflammation, which ultimately so impairs the function of the bladder that but a small quantity of urine forces it to contract, and hence incontinence of urine; or it may result from diffusion of urethritic inflammation to this organ, or from the continued use of powerful diuretics.

Readily distinguished from stone by the *relief* which invariably follows the evacuation of the bladder, which only augments the pain in the latter disease.

TREATMENT.—Ergot in five-grain doses three times daily; belladonna, $\frac{1}{4}$ grain of the extract, or ten of the tincture as often daily; muriated tincture iron, twenty drops thrice daily, are all very valuable. Bromide potass. if it depends upon congestion of the spine; macrotin, phosphorus and nux vomica, excellent in debility.

VOMITING AND RETCHING.—Vomiting is the result of forcible and repeated contractions of the stomach, with relaxation of the cardiac sphincter; the contraction of the stomach being considerably promoted by the spasmodic contraction of the diaphragm and abdominal muscles.

Retching consists in futile efforts to empty the stomach, owing either to the stomach being empty, or the cardiac sphincter being contracted.

The process of vomiting is well illustrated by the operation of emetics. Here we have a series of actions. It makes at first an impression on the sentient extremities of the nerves of the stomach; the sensation is referred to the brain; the energies of the brain are weakened by the prostrating influence of the nausea; and hence there is a languor of both bodily and mental powers. The peculiar excitement in the brain produces the sensation felt in the irritated organ.

Nausea, which generally precedes vomiting, produces these contractions, and both are generally due to debility.

The first effect of an emetic is uneasiness at the stomach, followed by nausea; the pulse becomes feeble and irregular, the skin becomes cold and shrunk, and the face turns pale; sickness and vomiting ensue. On passing away they leave the system in a languid condition, from which it soon recovers.

The symptoms in such cases are too palpable to require description.

CAUSES.—Indigestible food, indigestion and other disorders of the stomach, extremes of temperature, fatigue, mental emotions, &c.

TREATMENT.—When caused by taking too much food, it is an effort of nature to free the stomach from an over-load, which would do injury if retained; and free drinks of warm water should be given to promote the free cleansing of the stomach. After free evacuation of the stomach, a tablespoonful of coffee will usually restore healthy action.

Our best remedies are *nux vomica*, *cocculus*, *chamomilla*, *pulsatilla* and *ippecacuanha*. Sulphite of soda, in ten-grain doses, thrice daily, where there is acidity. Oxulate of cerium, one of our best agents in the sympathetic vomiting of pregnancy.

WHITLOW is met with under three varieties—the *cutaneous*, *subcutaneous* and *tendinous*.

The cutaneous, whitlow, consists of inflammation of the surface of the skin of the last phalanx of the finger, with burning pain and effusion of serum, or a bloody fluid which elevates the cuticle into a bladder.

The subcutaneous is attended with great pain and throbbing, and suppuration under the skin, at the root of the nail.

The tendinous affects the deeper seated tissues. If revulsive measures fail, as the local application of almost boiling water, a blister, or veratrum, or saturated with tincture of lobelia; then freely open.

WRY-NECK.—This affection consists of a distortion of the head, from muscular contraction, bringing the back of it forward, downward or sideways, and causing the chin to be turned upward and over the opposite shoulder. The chin is raised just in proportion as the occipital bone is drawn down.

Diseases of the vertebræ and injuries of the skin, and other causes, may produce this deformity. This affection is more generally the result of an unnatural and permanent contraction of the sterno-cleido mastoid muscle. There is often an undue contraction of one muscle, in consequence of the partial paralysis of the corresponding muscle of the opposite side. The contracted muscle may be felt like a tense prominent cord; or, if not distinctly felt, may be by an effort to turn the head toward the sound side.

Treatment.—Stimulating frictions, electricity, galvanism, and manual efforts to restore the head to its proper position, should be at first resorted to; but if these fail, the division of the muscle, or its tendon, will greatly expedite a cure.

The subcutaneous plan of division is the best.

But as wry-neck depends more frequently upon muscular rheumatism, nervous irritation, reflex or otherwise. Besides these frictions, if it has depended upon rheumatism, alkalies, colchicum, quinine and five grains of iodide potass., thrice daily. If upon nervous irritability, bromide potass., *nux vomica*, phosphorus.

YELLOW FEVER.—This disease prevails endemically in tropical climates. It is an acute and very dangerous fever, accompanied with jaundice, severe headache, and vomiting of black matter, probably infectious; male sex much more obnoxious to the morbid poison than the female.

SYMPTOMS—Often ushered in suddenly with languor, loss of appetite, giddiness, headache, mental depression at other times, coldness of the surface or distinct rigors; followed by fever which continues for a few hours. In other cases, again, there is prostration, no febrile reaction, stupor, coma, convulsions soon taking place. If there is fever it becomes aggravated at night, pulse quick, skin hot, dry, eyes congested, painful, face flushed, headache distressing, commonly confined to one temple, pains everywhere, but specially marked on the back, limbs, large joints, great irritability of the stomach, extreme tenderness on pressure, sense of tightness about the heart; nausea, vomiting persistent, retching intense, thirst and a desire for cold drinks, urine scanty and of a dark red color, constipation, stools free from bile, distressing restlessness, mental anxiety, sleeplessness, even delirium about the second or third day. The severity of the symptoms diminish; patient feels better, face slightly jaundiced; skin becomes moist, and there are copious bilious stools. If the case is favorable, convalescence becomes firmly established, more frequently improvement of a short duration. After twenty-four hours, the tenderness at the epigastrium is aggravated; jaundice increases and spreads over the body, tendency to stupor, coma, low muttering delirium, pulse feeble, intermitting, and so slow that it does not average thirty pulsations per minute; tongue foul and dry; embarrassed respiration; hiccough, thirst, nausea, vomiting, are persistent. If these symptoms do not yield, grumous blood is vomited, urine entirely suppressed, skin dark brown, dark colored blood effused under the skin in patches, or it exudes from the nose, gums, anus, vagina; most offensive tarry looking stool. The greatest malignancy is manifested, almost imperceptible pulse, slow stertorous breathing, involuntary evacuations, difficulty of deglutition and articulation, bloody urine, patches of gangrene.

Death takes place by coma, or convulsions, or the patient retains his consciousness to the last.

In yellow fever the stomach, liver, bowels, spleen and nervous system are under the influence of a poison, their function arrested, and there can be little doubt but that the presence of a greater amount of carbon in the system than the inspired air can properly act upon is a predisposing cause.

The effect of the poison on the system causes exhaustion, uræmia, or apoplexy.

Its duration is from three to nine days, mortality great.

TREATMENT.—This should be energetic; give the patient at once a rousing emetic of lobelia, capsicum, boneset and blood-root, pul., gr. xx, in some stimulating tea, and repeat, if necessary.

After free emesis a vapor bath, a thorough sweat, then give quinine, capsicum, chloride sodium, āā, gr. ij, every two hours. Oil of capsicum, diluted with alcohol, to the feet, calves of the legs, and mustard sinapisms to the spine, bathing with tincture capsicum all over. Then control the circulation with aconite, and act freely on the bowels with C. powder of senna and jalap, or euonymin, leptandra and jalapin. Sleep must be procured either by inunction with morphia, or subcutaneous injection of the same. If the nausea and vomiting is persistent, champagne wine iced, or tablespoonful doses of the following:

R̄.—Vinegar, Oss;
Common salt, grs. xxx;
Capsicum, grs. xx.—*Mix.*

Every ten minutes. If the disease does not yield, try salicin, quina, prussiate iron, podophyllum and capsicum, or sulph. beerberin, nitro-muriatic acid, turpentine, carbolic acid, sulphate ferri, sulphite sodæ, beef essence, arrow root, and the best of nourishment. From the commencement until convalescence the recumbent posture must be strictly maintained, the bed placed in the centre of an airy well-ventilated room, strict cleanliness; as a drink, barley water, lemonade, seltzer water, cold to the head, prolonged use of warm nitro-muriatic acid water baths, sinapisms over stomach. Camphor is of great value during the cold stage, and aconite and belladonna are so very beneficial in the first stage, that they might almost be regarded as specifics.

The most thorough ventilation and fumigation of every place in the vicinity. Individuals exposed to the risk of an attack should live on plain nourishing food, avoid all depressing agencies, as alcoholic drinks, sexual excess, and have a proper amount of sleep. They should sleep in the upper stories, have a daily bath, so as to promote the action of the skin; the kidneys and intestinal canal should be looked after.

MONOGRAPH OF DIAGNOSIS.

The examination of patients should be conducted with order, and according to a well-defined plan. All interrogations should be put in a systematic order, so as to arrive at a precise diagnosis and a rational indication of cure. But, above all, let us never forget that we are examining a fellow creature, who possesses the same feelings as ourselves. Prudence, delicacy and kindness should therefore guide our movements.

Inspection.—Inspection of the general posture of the patient in repose, and in motion, is often very suggestive. The position and attitude in fever, and inflammation, in paralysis, hydrothorax, asthma, colic, and spasmodic diseases, are highly characteristic. The supine position denotes muscular debility; quick, forcible changes indicate excitement of the nervous system, while fixed or restrained movements are dependent on paralysis or inflammation.

Inspection of the countenance is of great importance, observing whether sadness, peevishness, despair, fear, grief or joy is evinced; also, as to color and conformation. Yellow color in jaundice and scirrhus. Pain in the head will cause the brows to corrugate; in the chest, the nostrils to be drawn upward; in the abdomen, the lips to be raised, and stretched over the gums and teeth.

Inspection of the chest refers to the form and configuration of the entire thorax, or its various parts, and a careful comparison of the two sides, whether in motion or at rest. The motions of the chest are referable to inspiration and expiration, which pass imperceptibly into one another. In disease, these motions are altered in various ways: 1. By general excess or diminution, as in asthma, or laryngeal obstruction. 2. By partial immobility, as in pleurisy; or augmented expansion, as in pneumonia or pleurisy. 3. By increased rapidity, as in pericarditis; or unusual slowness, as in coma.

Inspection of the abdomen is no less important than that of the chest. In health it is slightly convex, marked by elevations and depressions, corresponding to the muscles of its walls, the umbilicus and prominences of the viscera below. It varies with age and sex; smooth and flat in the young; broader inferiorly in females than in males, from the greater width of the pelvis. In disease, it may be enlarged, generally, and symmetrically, as in dropsies; partially, or irregularly in ovarian, hepatic, splenic and other diseases; it may be

retracted from emaciation or intestinal obstruction. The respiratory movements of the abdomen bear a certain relation to those of the chest, and are increased or arrested with them. In pleurisy, the respiratory movements are mostly abdominal; in peritonitis, altogether thoracic. Disturbed relations of the respiratory movements of both abdomen and thorax, are useful points in diagnosis in hydrothorax, asthma, anæmia, ascites, abdominal tumors, &c.

Palpation.—This is a valuable mode of examination, and is practiced by simply applying the tip of the fingers, or the whole hand, or both, and pressing with them. The most favorable position for palpation is the horizontal or erect position. The information that palpation gives us is, 1. Increased or diminished sensibility. 2. The altered form or shape, size, density, elasticity, &c., of the parts under examination. 3. The different kinds of movements to which they are subjected. Pain, if inflammatory, is increased on pressure, but relieved if neuralgic. In paralysis the diminution of sensibility can only be ascertained by feeling the part, and the limitation of the anæsthesia is best arrived at by pricking the surface. Alterations in size, form and density, are often exactly made out by palpation; a change in elasticity, hypertrophy or atrophy, is also easily determined.

Certain motions, as expansion and contraction, vibrations, frictions, grating, crepitation, are also easily determined by palpation. The natural fremitus or thrill perceptible on placing the hand on the chest, when a person speaks, is increased or diminished in disease. Fluctuation is a sensation caused by pressing on or percussing parts in such a way as to cause displacement of their contained fluids.

Mensuration.—This is another valuable mode of examination, and consists in measuring the distance between any two points by a graduated tape. In ascertaining the circular measurement of the chest or abdomen, that moment should be selected when the patient holds his breath at the end of an ordinary expiration, great care being taken that the tape is carried evenly round the body. For measuring either side of the chest or abdomen a spinous process of the vertebræ should be taken as a fixed point, and the middle of the sternum or umbilicus for the other. The exact levels of the measurements should be carefully noted, and an allowance of an inch or an inch and a half for the right side. The pressure of the stays in a female enlarges the thoracic and diminishes the abdominal movements.

Mensuration is valuable in pleuritis, pneumonia, incipient phthisis, emphysema.

The expansibility of the lungs, and the amount of air expelled from the chest after a full inspiration, may be accurately measured by the spirometer.

Percussion.—The object of percussion is to ascertain the resistance and size of organs. It may be performed directly, or through the medium of an interposed body, as the fingers or pleximeter, (mediate percussion.) It is best performed by spreading the fingers of the left hand over the parts to be percussed, and striking each one alternately with the points of the fingers of the other hand. The ivory pleximeter possesses no advantages over the fingers.

The sounds produced by percussion arise from the vibrations occasioned in the solid texture of the organs percussed. The different density and elasticity of these textures modify the number and continuance of the vibrations, and give rise to different sounds.

The sounds obtained by percussion are essentially three, and these three sounds are respectively dependent—1st, on the organs containing air; 2d, on its containing fluid; and, 3d, on its being formed of a dense, uniform parenchymatous tissue throughout. These tones, therefore, may be termed the *tympanitic*, the *humoral*, and *parenchymatous*. The terms femoral, cardial, intestinal, hydatid, may be used to express some modification of sound produced in percussing the heart, intestines, &c.

To become thoroughly conversant with those sounds, practice and perseverance are indispensable.

The sense of resistance is an important consideration in percussion; it bears a relation to the density of the object struck, thus: firm and solid textures offer more resistance than the soft or elastic ones. The thorax of a child is elastic, that of an adult unyielding.

Before proceeding to percuss individual organs in persons laboring under disease, a clear and accurate knowledge of the limits and intensity of dullness on percussion of the thoracic and abdominal viscera in health, should be well understood.

Over the region of normal lungs, we have a clear tympanitic sound. Congestion or effusion of tubercle, in its first stage, may cause slight dullness and increased resistance, which only careful percussion can detect, but in a more advanced stage the dullness and resistance are well marked, and even an impression of hardness and solidity is communicated to the hand.

Tubercular effusion takes place by affinity in the apex of the lungs, inflammation at the base; when congestion or induration exists in those portions of the lungs which overlap the liver, it requires nice discrimination to detect it with certainty.

Fluid may be detected in the pleural cavity by percussing the patient in the recumbent position, where, if but little exist, there may be no unnatural dullness; but let the patient sit up, then the height or level of the fluid may be readily determined, and should be marked by a line of nitrate of silver. If the effusion fills the pleural cavity, no limit can be placed to the area of dullness. If the lung is emphysematous, or if air be present in the pleura, the sound becomes unusually tympanitic.

The diagnosis of affections of the heart constitute the most difficult in the art of medicine. Its size can be easily appreciated, and any abnormal deviations detected. Its size varies, but a normal heart should occupy an area of dullness equal to the closed fist of the patient, but in effusion between the pericardium and heart the area of the dullness may be great; so, also, in the various forms of hypertrophy. It may bulge out in pericarditis.

It is necessary to be cautious in percussing the liver, so as to determine its boundaries. The superior limit of this organ is generally found about two inches below the right nipple; its inferior border

descends to the lower margin of the ribs. Variations in the size of the liver, from congestion, inflammation, abscess, hydatids, tumors or atrophy, may be exactly made out by percussion. In icterus, the increase and diminution of this organ will be found to bear a proportion to the intensity of organic disease. If the gall-bladder is distended by bile, or contains gall-stones, it is usually easily detected by percussion; and the dullness under the inferior margin of the liver, anteriorly and somewhat laterally, may be marked out.

The size of the spleen is four inches long and three inches wide. In diseased states it may be atrophied or enlarged. In percussing this organ, place the patient on the right side.

The sounds elicited on percussion of the stomach and intestines are of great value in determining the form of other organs, as the liver, spleen, bladder, abdominal tumors, and effusion of fluid.

To obtain a correct appreciation of the kidneys by percussion, the patient should be placed on his abdomen, so as to give us a clear appreciation of the renal organs.

A correct appreciation of the state of the bladder is derived by percussion.

Auscultation.—The object of auscultation is to ascertain and appreciate the nature of the various sounds which occur in the interior of the body; and its utility is limited to the pulmonary and circulatory organs. It consists in applying the ear to the part, or indirectly through the stethoscope.

Before resorting to auscultation, it is absolutely necessary that the student or practitioner be thoroughly conversant with the *normal* sounds. This must be learned from the living patient, never from books or lectures.

Place your ear over the larynx and trachea of an adult male in perfect health, and you will hear two noises—one accompanying inspiration, and the other that of expiration, called the laryngeal and tracheal sounds or murmurs.

Move the ear to the right or left of the manubrium of the sternum, and you will hear the same sounds diminished in intensity; these are the bronchial sounds or murmurs. Place the ear under the nipple of the right side, and two fine murmurs will be detected—normal vesicular respiratory murmurs. Keep the ear in the same place, and have the individual speak, and there will be a peculiar resonance of the voice, called pectoriloquy, or bronchophony. With regard to these healthy sounds, it should be remembered that vocal resonance originates in the larynx, and diminishes or increases, according to the distance of any point from the source of sound, and also to the power which the textures have in propagating it. Now, in all affections of the lungs, these natural sounds are altered—new abnormal sounds are developed.

The alterations of the natural sounds in diseased conditions may be increased, diminished, absent, or location changed; the most common alterations are in intensity; often stronger in one place than in another, or on one side, (puerile respiration,) indicating increased action at one part, and diminished action at another.

There may also be an alteration in character, the sounds becoming harsh, as in pneumonia; cavernous, when a cavity is formed, as in phthisis; amphoric in pneumo-thorax. There may also be an alteration in position; that is, that sounds which are natural to certain parts of the chest are heard distinctly at places where, in health, they are never detected. For instance, in pneumonia, bronchial or tubular breathing may be evident where only a vesicular murmur ought to exist.

The inspiration in health is three times as long as the expiration, but, in certain diseased conditions, this relation is altered or inverted.

All the abnormal sounds may be classed under three heads: 1. Rubbing or friction sounds; 2. Moist rattles; 3. Vibrating murmurs.

1. *Rubbing or friction sounds* are caused by some morbid change in the pleura, as effusion in pleurisy, where, instead of sliding noiselessly on one another, they emit a rubbing sound, like the rustling of two pieces of silk or brown paper, or grating, rasping, and between these extremes we have every intermediate degree of friction noise. The sound will depend upon what change the inflammation has produced, either a thin exudation, when the sound is soft, or the exudation is tougher or thicker, when the sound will be louder. Should it be hard, dense or rough, there is a harsh or grating noise present in the various forms of pleurisy and pericarditis.

2. *Moist rattles* are produced by bubbles of air traversing in a viscous fluid. They occur in the bronchial tubes, when they contain liquid exudation, as mucus or pus, or ulcers, in some cases, so fine as to be scarcely audible, (crepitating;) so coarse as to resemble gurgling or splashing, (cavernous,) and between these two grades we may enumerate a large number of râles, as mucus, submucus, subcrepitating. For all practicable purposes, the term moist is applicable to all. These rattles are heard in pneumonia, phthisis, bronchitis, apoplexy.

3. *Dry, vibrating murmurs* arise when the air tubes are obstructed, lose their elasticity, or are affected with spasm or thickening, whereby the vibrations into which they are thrown by the column of air produce tones of an abnormal character. The murmur is dry, and the fineness or coarseness of the sound will depend upon the calibre of the tube or cavity thrown into vibration. Murmurs may exist from a fine squeaking or a hoarse snoring, common in asthma, dry bronchitis, and emphysema.

Circulatory organs in health or disease.—In putting our ear to the heart, we should pay attention to the impulse, to the character and rhythm of the sounds, to the place where they are heard loudest, and the direction in which they are propagated.

First find the spot where the apex of the heart beats against the walls of the chest; then listen to the sounds. Place the ear a little to the inside of the nipple, near the margin of the sternum, and listen to the sounds there; in the first position you will hear the systolic sound; in the second, the diastolic sound.

There are two sounds then heard over the region of the heart. The first is dull, deep, more prolonged than the second, coincides with the

shock of the apex of the heart against the thorax, and immediately precedes the radial pulse; it has its maximum of intensity over the apex of the heart, below the inside of the nipple. The second sound is sharper, shorter, more superficial, has its maximum of intensity nearly on a level with the third rib, and a little above and to the right of the nipple, near the left edge of the sternum. These sounds have received the names systolic, (contraction,) and diastolic, (dilatation.)

The two sounds are repeated in couples: 1. There is the long, dull sound, coinciding with the contraction of the heart; 2. There is a short pause; 3. The short, sharp sound; 4. A longer pause; all of which correspond with one pulsation.

With the systolic (contraction) sound, we have the striking of the apex against the thoracic walls, then contraction of the ventricles, then rushing of the blood through the aortic orifices, followed by flapping of the auriculo-ventricular valves.

With the diastolic (dilatating) sound, we have rushing of the blood through the auriculo-ventricular valves, and flapping together of the aortic valves.

In disease there may be a modification of the sounds heard in health, and also new or abnormal sounds developed.

The modifications of healthy sounds are variations in their seat, intensity, extent, character and rhythm.

For example, the sounds may be heard at their maximum intensity lower than the natural point in cases of dilated hypertrophy of the left ventricle, enlargement of the auricles, or tumor at the base depressing the organ. They may be higher, owing to some abnormal swelling, or more on one side than another by effusions of fluid or air in the pleural cavity, or tumors, aneurisms, deformity, &c.

The intensity and extent of the sounds may be diminished, where the heart is atrophied or softened; when there is pericardial effusion, concentric atrophy of left ventricle, or emphysema. The intensity and extent of the sounds are increased in cases of dilated hypertrophy, nervous palpitation, or when the adjacent parts of the lung are indurated, as in pneumonia and phthisis.

The character of the sounds may be clearer or duller than in health, according as the walls of the heart are thinner or thicker. Often the sounds are muffled in cases of hypertrophy or softening of the muscular walls, or when there is effusion between the pericardium and heart. Sometimes they are rough, generally due to inflammatory change.

The frequency of pulsations varies in different affections. In certain diseased conditions, the beats are intermittent, in others irregular. There may also be a variation in sound; several sounds may be heard, then a sort of intermission depending either upon reduplication in the action of the valves when diseased, or on a want of synchronism between the two sides of the heart. Sometimes, from increased or irregular action of the organ, the sounds are bounding or tumultuous.

All the diseased or new sounds of the heart may be classed under two heads: 1st, Friction murmurs; 2d, Blowing or vibrating murmurs.

The friction sound originates from inflammatory causes, same as friction sound in pleurisy.

The vibrating murmurs depend on some organic change, generally the product of inflammation. These murmurs vary in character from a gentle blowing or puff from the nozzle of a bellows, (bellows murmur;) whilst others are harsher, grating, or sawing; but all caused by some diseased condition of the valves.

Sometimes the valves do not close, and, as a result, the blood regurgitates through them; in some cases the valves are constricted, indurated, roughened and calcareous. The abnormal sounds may be single or double, and have their origin either in the auriculo-ventricular or arterial valves, or in both.

These sounds often resemble musical notes, more or less resembling the cooing of a dove, singing or whistling; all depending upon some excessive narrowing of the orifices, perforations in the valves, irregularities in their margins, or exudations on their surface.

Not unfrequently a soft systolic blowing is audible at the base of the heart, or over the carotids and deep jugular vein; sometimes it is continuous, resembling the humming of a top. These murmurs are distinguished from valvular ones, by being systolic at the base of the heart, by their softness, by their not being permanent, by their occurring in anæmic or debilitated persons or young girls.

On listening over the arteries, in the vicinity of the heart, we hear the same sounds as are produced at the sigmoid valves, propagated along its course, but more distinctly as we move away from the base. Often we can detect a double murmur if near an aneurismal pouch.

On applying the ear to the abdomen in health, there are gurgling and churning noises heard, caused by the displacement of gas and water, most audible after a cathartic.

In peritonitis, the friction or grating sounds are heard, owing to roughening of the peritoneum by inflammatory effusion. No conclusion as to the nature of the disease should be positively relied on by auscultation and percussion alone, without a knowledge of all the circumstances of the case. They are only modes of reaching an end.

There are also other valuable means of diagnosing certain diseases, as the diathesis, temperament of the pulse by the sphygmograph; the kidneys, by the chemical examination of the urine; the strength by the thermometer; the internal condition of organs by the endoscope; the amount of tubercular exudation in the lungs by the spirometer.

Temperaments.—No practitioner can be successful unless he possesses a thorough knowledge of the temperaments, their incompatibility, and the different action of medicines in each. For ordinary purposes the old division of the temperaments is good, namely, into four.

1. *Lymphatic*—not a vital temperament, but one created by civilization, in which there is easily seen a full, soft, rounded form, and languid action.

2. *The sanguine*—a vital temperament in which there is a florid complexion, expanded chest, great vivacity of disposition, a preponderance of the vascular system, whence the term plethoric, circulation full, strong and vigorous.

3. *The bilious*—a vital temperament, where the muscular system

predominates. The body is remarkable for its compactness of fibre, indicative of strength and activity.

4. *The encephalic*—a temperament purely non-vital, in which there is a thin sharp outline, irregular and vivacious activity, great susceptibility of impressions, a predominance of the nervous over all other functions. The name has no diagnostic complexion—it may be either dark or fair.

It is a well-known physiological law, that if the respective parties to a marriage are similar or identical in temperament, so that no appreciable difference exists, sterility will be the result of the marriage; even though they be dissimilar in appearance, if they are made up of equal portions of the same temperaments, their union would be incompatible.

The sanguine and bilious are deemed the vital temperaments; for, without the agency of one or other of them, there can be no reproduction or transmission of life. The *non-vital*, lymphatic and nervous are supposed to be created by civilization, and subject to change. The lymphatic and encephalic temperaments have respectively no diagnostic complexion. When they exist, they are founded on a vital temperament, and, when that is bilious, the complexion is dark, when sanguine, fair. The non-vital temperaments have resulted from civilization, and are indispensable to a high state of advancement, and although they both possess feeble vitality in the abstract, still, from a combination with the vital temperaments, many a useful and ornamental modification of humanity are produced. If the vital or non-vital acquire a predominance, the tendency is to extinction.

The production of the non-vital is an important field of scientific discovery, involving the perpetuity of the civilized races of men. When the constitutional condition of married parties is nearly, though not entirely the same, offspring may result, but it will be scrofulous, idiotic, blind, deaf, will probably die in infancy.

The greatest difference that can be obtained between the respective sexes is that which obtains between a vital and non-vital temperament, and this difference is favorable to the elaboration of a sound viable progeny.

All marriages in antagonism to this law will entail on the offspring some unfortunate result. Children born from parents that are partly incompatible, possess a feeble organization, which is liable to yield to the simplest forms of diseased action, and it is here that the scientific practitioner is so frequently baffled, and his best resources of no utility, for disease and death are stamped upon the very blood and tissues of children, the product of incompatible marriages.

The sphygmograph.—This is an instrument which has lately been invented for the medical profession, and certainly it is destined to prove of great service to the physician in aiding him to form a correct diagnosis and prognosis of all diseases that are dependent upon the circulatory system. By this instrument the various curves of the pulse are produced on blackened paper, whether relating to the ascent, the descent, or the vertex of the curve, indicating all the changing curves from the normal pulse in health, to the abnormal pulse in patho-

logical conditions of the highest order. The sphygmograph is generally applied to the radial artery, and it is found that if both limbs are equally healthy, the tracings of the instrument on both sides will be the same.

1. The curve of all *normal* radial pulses is of an exquisitely trierotic character, and is only modified by the influence of frequency and intensity of the heart's contractions, which depend on age, state of nutrition, and condition of the artery.

By repeated experiments it has been demonstrated that the descending part of a pulse-curve is the most important one. It shows two negative waves, each followed by a positive wave, or ascent; the latter are called *secondary* waves, and the second negative and positive are called respectively the great incisure and great ascent. A less essential ascent occurs sometimes at the bottom of the great incisure. In middle age the normal radial pulse is either large, middle or small, with respect to intensity.

By applying the sphygmograph, it will be manifest by the gradual alterations of the curve, that the small pulse is simply the concealed large modification, which differs from the middle pulse inasmuch as the first secondary wave is met with a little nearer the apex.

The wave exists in the middle pulse about equal height with the middle of the ascending limb of the whole curve. An inaccurate trace of the large pulse is likely to result from the weakness of the spring, which must be strengthened, but so as not to retard the reproduction of the first secondary wave on the paper. The tracing lever has no movements of its own, but its regularity is disturbed by hiccough. The normal radial pulse in *old age* possesses its own specific character, as indicated—1st, by the great dimensions of the curve; 2d, by the closer proximity, not only of the first, but of all secondary ascensions to the apex of the curve; and, 3d, by the extreme predominance of the first secondary wave, the basis of which exceeds in length two to three times of the great ascension.

Similar to the radial pulse of old age, stands that which is met with in people not far advanced in years and suffering from hypertrophy of the left ventricle, and, next, that which accompanies insufficiency of the aortic valve.

The normal radial pulse of children, from two to about seven years of age, is distinguished by a wave which ascends rapidly, and descends gradually by small undulations. In girls the first secondary wave appears to be more marked than in boys.

2. The curve of the *pathological* radial pulse. The individual disease cannot be recognized by the pulse *peculiar* to it, but the pathological changes which the *normal* curve of the radial artery undergoes, take place simultaneously with the changes ensuing in fever, and are indicated by the rise or fall of temperature. The transformation of the normal pulse-curve is effected according to the following law: the great incisure becomes enlarged at the expense of the adjacent secondary waves.

The dierotic form is the centre of all pathological pulses, distinguished by its great incisure, extending downward to the base of the

curve, and by its smaller first secondary wave, and by its increased frequency, which causes the great ascent to appear more shifted toward the end of the curve. This type, in fever, is preceded by the hypodierotic pulse, the great incisure of which does not reach yet to the base of the curve, while the great ascent is only a little retarded.

In the hyperdierotic pulse the lowest point of the great incisure is rounded off, and lies below the base of the curve, the first secondary wave is reduced in its size to a minimum. The great ascent, being assailed itself, appears, by the again increased frequency, even more at the end of the curve.

In the highest paroxysm of fever, the great incisure and great ascent annihilate each other, and, with the disappearance of the dierotic form the monocrotic pulse is established. The changes of temperature influence the pulse-curve in acute disease in a different manner than in chronic disease.

The radial pulse-curve in *acute febrile diseases of middle age*. In a febrile accession and rise of temperature to about 103.5° , Fahr., the pulse assumes the hypodierotic type, followed by the dierotic form when between 103.5 — 105° , Fahr. At this stage of the fever the first secondary wave has lost much of its amplitude and energy, while the great ascent, having gained in strength, makes the dierotism easily perceptible to the finger. This has been observed in pneumonia, pericarditis, &c., as well as in typhus.

Exceptions to the rule are due to a disturbed innervation of the system of circulation.

If the fever exalts the temperature above 105° , Fahr., the pulse becomes hyperdierotic. If quinine has been given, the great incisure is not rounded off, but more pointed at the lowest point, and the retrograde metamorphosis to the dierotic pulse, at the end of the paroxysm, tends to prove that the great ascent has never been completely conquered by the great incisure.

A pulse at 106 — 108° , Fahr., exhibits the more or less perfect monocrotic type; it often appears only to usher in death.

The radial pulse-curve in chronic febrile diseases of the middle age. The normal radial pulse-curve is found at, or even below 97° , Fahr.; this will be reduced the longer the duration of the fever is, and the more the organism is undermined.

The radial pulse-curve in febrile disease of old people commencing about fifty or fifty-two. Following the foregoing rules, the result is modified by the character of the pulse peculiar to old age. The first secondary wave being prominent, may lose its size considerably, while the great incisure increases; but the trierotic character of the curve will remain better and preserved for a longer time. The pulse-curve of persons with insufficiency of the aortic valve, if affected with febrile disease, is similarly attacked.

Dierotism occurs—1. When, *cæteris paribus*, the heart force is increased: 2. When, *cæteris paribus*, the arterial tension is diminished. In both cases, the line of ascent is sudden and vertical.

Dierotism ceases—1. When, *cæteris paribus*, the heart force is diminished; 2. When, *cæteris paribus*, the general tension is increased.

A sudden ascent is a sign of dirotism; a sloping ascent is a sign of its absence.

The examination of urine.—The quantity, but, especially, the quality, of the urine furnishes a valuable test, both as to the presence of disease, and as to its specific character; but the application of this test presupposes a knowledge of the constituents of healthy urine.

PHYSICAL CHARACTER OF NORMAL URINE.—*Quantity in health.*—Under ordinary circumstances, a healthy adult voids from thirty to thirty-five ounces per diem, in summer, and from thirty-five to forty ounces during winter.

Specific gravity.—In conditions of health its density varies from 1010 to 1025, and, when examined with the microscope, when recently passed, is quite structureless. When permitted to settle, a cloudy deposit is sometimes formed, containing a few epithelial scales from the bladder. Water constitutes over nine-tenths of the entire constituents by weight of the urine, and urea exists in greater abundance than all the other solid constituents combined. More than half an ounce of urea is excreted by a healthy man in twenty-four hours. It results from the transformations of azotised matter, and, when not removed by the kidneys, it accumulates in the blood, and appears in the saliva, the bile, the gastric secretions, and nearly all the humors.

Normal urine is slightly acid, and increases in acidity by long standing. When the presence of acidity only is sought for, without regard to the quantity, the urine may be tested with litmus paper. Neutral urine is normal urine very much diluted.

The urine may be alkaline. Its sources are blood and pus, and the decomposition of urine or carbonate of ammonia in the bladder. Its determining cause is the action of the oxygen of the air upon the above named substances.

The action of the principal reagents employed in the examination of the urine:

1. Specific gravity is low in chronic cases of Bright's disease; but high where there is an excess of urea or uric acid, with high-colored urine.

2. Heat throws down phosphates and albumen; the former soluble and the latter insoluble in acid. It also dissolves urate deposits, but not those of uric acid or the phosphates

3. Nitric acid precipitates albumen quickly, and uric acid and nitrate of urea more gradually. Nitric acid also dissolves oxalates, and earthy and alkaline phosphates. It also decomposes urea into carbonate of ammonia, with heat, and carbonate of lime and uric acid, without the aid of heat.

4. Hydrochloric acid transforms urates into uric acid, and precipitates uric acid. It also detects indican, by the violet change of color.

5. Sulphuric acid, with the addition of sugar, changes the color of urine to crimson or violet, if bilin be present.

6. Acetic acid precipitates deposit, if mucus be present.

7. Liquor potassæ precipitates earthy phosphates, turns the urine brown on boiling, if it contains sugar, dissolves deposits of urates and uric acid, and forms a gelatinous mass, should pus be present.

8. Liquor ammoniæ dissolves cystine and precipitates earthy phosphates.

9. Solution of chloride of barium precipitates phosphates and sulphates, the former soluble and the latter insoluble in acids.

10. Nitrate of silver forms a yellow deposit, if alkaline phosphates be present, and a white deposit, if chloride of sodium be present.

11. Alcohol or ether precipitates albumen, dissolves hippuric acid, but does not dissolve uric acid; ether dissolves fat.

From the foregoing, it will be observed that the tests for albumen are, heat, nitric acid and alcohol.

The tests for urea and uric acid are, high specific gravity, nitric acid, hydrochloric acid and liquor potassæ.

The tests for the phosphates are, heat, liquor ammoniæ and the chloride of barium.

The test for the sulphates is, chloride of barium.

The test for sugar is, liquor potassæ.

Semen in the urine, when newly voided, appears milky, but becomes precipitated when allowed to settle.

In order to conduct the tests so as to insure accurate results, it is necessary, first of all, to ascertain its reaction on litmus paper, which, if the urine be acid, it changes red; but, if alkaline, changes red turmeric to blue.

Temperature of the body.—The normal temperature at uncovered parts of the surface is 98.4° , Fahr. A continued increase over one degree, or depression of more than one degree less than the normal standard, is indicative of disease. When the increase is over 99° , it is a sure index of the amount of fever present. This test should be applied at the same hour from day to day during the illness; and the bulb of the thermometer should be placed over the arm-pit, groin, or belly, and retained there for a few minutes.

There is a continued elevation of the temperature of the body in which tuberculosis is taking place in any of its organs; and the temperature may be taken as the measure of the amount of the tuberculosis.

I consider the temperature furnishes a better index as to the amount of the tuberculosis than the other physical signs or symptoms; and by it we can diagnose tuberculosis in many cases when all other means would fail us.

Besides, in cases where the temperature has become reduced, we can pretty nearly assure ourselves that the deposition of tubercle has ceased.

The temperature is a valuable guide in determining, to some extent, the severity of the attack of cholera. An increase of about 2° , Fahr., succeeds a severe attack of cramps; this is occasioned by muscular exertion and the acceleration of respiration resulting from the attack. The temperature and the frequency of respiration bear a relation to each other; the higher the temperature the more hurried the respiration will be. It is very rare that recovery is effected where the temperature is above 101° , Fahr., or the respirations exceed more than 40 in the minute.

In meningitis, hemiplegia, and, indeed, in diseases, as a class, the alleviation or removal of pain, with general improvement, are phenomena that are always coincident with a lower temperature, *et vice versa*.

Endoscopy.—This new and highly valuable instrument consists of a lamp placed in the vertical position, having its light reflected by means of a mirror fixed at an angle of 45° down a tube; but which can be turned to any angle in the vertical plane. But to furnish a detailed description of the instrument would be foreign to our purpose, which is rather to consider the diseases in which its use is of advantage. We may remark, however, that the success of the exploration depends on the accurate adjustment of the apparatus.

The endoscope, though not meant to replace the ordinary methods—those derived from touch—yet it is of peculiar value in various affections of the urethra. In stricture, its employment furnishes us with the evidence as to the color, and configuration of the face of the stricture with the position of its orifice; points highly important with a view to the diagnosis of the case. During the transition, from the period of ulceration and granulation, to that of cicatrization, the mucous membrane loses its pink or red color, and becomes pale or grayish.

Cystitis, a common complication of gleet, the endoscope shows to depend on granulations in the bulb or prostatic urethra. In recent cases the tendency can be cured by destroying the granulations. Cystitis can also be diagnosed by endoscopy when resulting from the herpetic condition of the urethra.

To discriminate between the tubercular affection of the testicle, and chronic gonorrhœal orchitis, the use of the endoscope is often indispensable. A hypersecretion from the urethra may occur in lymphatic constitutions, without any lesion. This condition can also be recognized by the endoscope, and demands tonic treatment. The diagnosis between the tumor and columnar bladder is greatly facilitated by the use of the endoscope.

Calculi can easily be seen in the bladder, and even their volume can be obtained by counting the number of times which the field of the instrument is changed in passing over their surface.

The number, as well as the size of the stones, can be ascertained by this instrument.

But the utility of the endoscope is not limited to diseases of the urethra; it may be applied to any portion of the human body into which a straight tube can be introduced. With it the interior of the bladder may be minutely examined, should the presence of tumors, ulcerations and calculi be suspected. The rectum can be searched for ulcerations, constrictions, tumors and other morbid affections. But the cavity of the uterus, the auditory meatus, nasal fossæ, the pharynx and larynx can also be explored.

The endoscope is also valuable in the case of wounds, especially in deciding as to the presence or absence of a foreign body.

The endoscope is destined to become as highly prized as the laryngoscope and ophthalmoscope are at present, and even more so, inasmuch as the former is not limited to its application to one organ, but

can be employed to any part containing a cavity through which a straight tube can be passed.

Spirometer—Is an instrument for measuring the volume of air expired from the lungs. Each stage of phthisis diminishes the volume of expired air. The quantity of air expired after *complete* inspiration, is termed the *vital volume* or *capacity*. The vital capacity always increases with stature, but only slightly affected by weight.

Females measure less than males, (some ten or twelve per cent.,) and either sex gradually decrease in lung capacity after the prime of life, 40 to 45 years of age.

The extreme breathing capacity is diminished by *obesity*. By extreme breathing capacity, is meant the volume of air which can be expelled from the lungs by the most forcible expiration, after the deepest inspiration.

A man whose height is between five feet seven inches and five feet eight inches, should breathe in health two hundred and thirty cubic inches, and the ratio increases according to stature, thus:

For every inch in height, between five and six feet, the extreme breathing capacity is increased eight cubic inches.

The breathing capacity is modified by any abnormal condition which interferes with the mobility of the thorax, or the dilatibility of the lungs. Phthisis pulmonalis is the most prominent of these morbid conditions, and the variations in this disease may be epitomized thus: ten cubic inches below the due quantity, *i. e.* two hundred and twenty instead of two hundred and thirty inches, need not excite alarm; but there is a point of deficiency in the breathing volume at which it is difficult to say whether it is merely one of those physiological differences dependent on a certain irregularity, or a deficiency indicative of disease. A deficiency of fifteen per cent., or upwards, is suspicious, and unless the patient is excessively fat, is probably the subject of disease. On the other hand, an individual having phthisis, may have only ten per cent. of the full vital capacity, and yet life be maintained.

Every inch of tuberculated lung will insure a decrease of forty cubic inches in measurement. If the deficiency in any case does not indicate more than ten per cent. less breathing capacity than the physical conformation would indicate, there is no real cause of apprehension; but if the deficiency exceeds fifteen per cent., the subject of it should lose no time in securing medical aid.

Microscope.—A thorough knowledge of the structures of the human body is now (compared with former times) so complete that the microscope is an indispensable agent for the medical practitioner to possess. The best microscope for the anatomist and physiologist, is an instrument of sufficient power, from 250 to 300 diameters; one that combines steadiness, power of easy adjustment, facility for observation, demonstration and portability.

For the purpose of obtaining a perfect diagnosis, it is indispensable that a complete knowledge of the tissues, both in their healthy and diseased conditions, should be acquired, but such knowledge can never be attained without the aid of the microscope.

Perhaps in no disease is its value better illustrated than in that of

cancer, for the varieties of cancerous growths is based on the different microscopic appearances of their minute structure. Moreover, the microscope often reveals the existence of a cancerous deposit in surrounding textures where it would not be suspected.

Electricity.—This is a valuable aid to diagnosis in some diseases, and, when used, the positive pole of the battery should be applied to the spine or origin of the nerves. The best mode of application is by wet sponges. In atrophy of muscles, if there is an entire loss of contractile power, (electric muscular contractility,) we have reason to suppose either that the muscular fibres have degenerated into fat, or that a complete breach of nervous influence has occurred. In incipient phthisis, the positive pole to the spine, and with the negative bath to the chest, how quickly and instinctively will the patient complain of soreness when we reach or touch the tender point, the place where tubercular exudation is taking place. Electrization is sometimes valuable for diagnostic purposes, *e. g.*, the atrophied muscle of rheumatism contracts well under the galvanic stimulus, whereas it has an opposite effect in fatty transformation of the muscular tissue.

The electric fluid may be communicated by points, sparks, or by shocks, according as a greater or less intensity is required. Electricity acts as an excitant, counter-irritant, and it acts on the economy by increasing or decreasing the quantity of positive or negative electricity which the human body may contain. When it increases the positive electricity it diminishes the negative, *et vice versa*.

Acupuncture.—Direct medication by the skin is one of the most valuable means of using medicine in the cure of disease. Recent

Fig. 142.

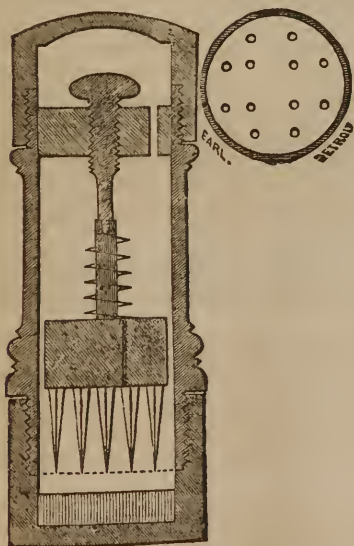
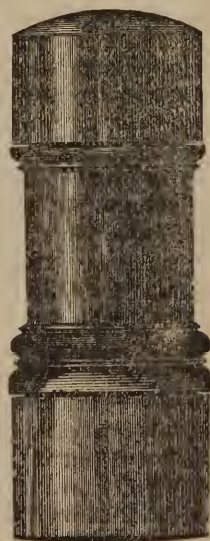


Fig. 143.



discoveries in pathology have demanded means whereby the peripheral extremities could be impressed or brought in contact with remedial

agents. Several contrivances have been invented for this purpose, but all have been failures, until A. H. Brown, M. D., introduced his famous acupuncturator.

This instrument supplies a *desideratum* that has long been wanting, a perfect means of direct medication, by puncturing the skin, and bringing the remedies into direct contact with the peripheral extremities of the nerves. Direct medication has long been neglected, solely for the want of a proper apparatus. Instead of the old-fashioned mode of unction, by incorporating remedies in some ointment, and rubbing them into the axilla and groin, which, at best, was uncertain, unpleasant and empirical. We have here a means positive, cleanly in its application, and acceptable to the most fastidious. Nearly all diseases can be reached through this mode of treatment. If, for instance, we use a very small quantity of castor oil in the instrument, and apply it anywhere on the body, in a case of obstinate constipation, what is the result? Peristaltic action is at once excited, and, in a short period of time, the bowels are relieved.

In intermittent fever take a half teaspoonful of oil of mustard; rub into it two grains of quinine and a half a grain of gelseminum; put it into the instrument, and apply on each side of the spinal column two hours prior to the paroxysm; the result will be a neutralization of the malarial poison, and no chill.

In those terrible convulsions, where all remedies seem to be useless, as in tetanus and puerperal convulsions, charge it with oil of lobelia, applying it on each side of the vertebral column; the spasm at once relaxes, and the patient becomes conscious. It will arrest the involuntary movements of chorea, the terrible convulsions of epilepsy, cure neuralgia almost instantaneously, and in sciatica it is the *ne plus ultra* of perfection.

In all forms of dysmenorrhœa, except the membranous, it will promptly relieve and cure after three or four applications, thus: take one grain of the extract of belladonna; rub it up in sufficient glycerine; then fill the instrument twice, and apply only over the lumbar portion of the spine. Do this once a month for three or four months.

In periostitis, take one drachm tincture iodine, and one of ammonia. Use with the instrument over the affected part, and the deep-seated inflammation is at once aborted.

In the early stage of coxalgia and white swelling, it attracts the inflammation from the deep-seated parts, and with proper constitutional means, the disease is rapidly cured.

But it is useless to amplify; we have the remedy and know its therapeutic indications; all we have to do is to apply it, and obtain a positive therapeutic result. Apply it over the stomach with oil lobelia, and we have instantaneous vomiting, &c., and thus with other remedies.

Our concentrated remedies have been thoroughly tested with the acupuncturator.

Messrs. Brown & Herrick, the inventors, spent the greater portion of 1866-67, in the hospitals of Philadelphia, and thoroughly tested all the new remedies, and reduced them down to mathematical precision, so that it is now no longer necessary to crowd the stomach with crude

drugs, when we can apply them quicker, and to any part of the body, thereby securing a more rapid power of absorption than by the stomach.

Besides, in some diseases, where the stomach is so much involved, absorption arrested, that to administer drugs thus would be to aggravate the disease. All physicians should procure one of those invaluable instruments, and a set of the remedies as prepared by them, and so highly recommended by the College of Physicians and Surgeons of Philadelphia.

The annexed wood-cut fully exhibits the instrument. The little tubes penetrate the skin and introduce the remedy, bringing it into direct contact with the peripheral extremities of nerves in the true skin and cellular tissue, whence it almost immediately acts upon the part for which it has an affinity; for all remedial means have a special tendency to affect particular parts, or special tissue.

Subcutaneous injections.—This is now conceded to be a most invaluable form of medication, and it possesses a great advantage over the ordinary mode of administration, that of swallowing, in being *direct* and *positive*.

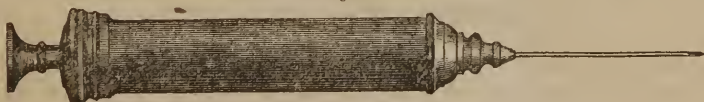
It is alike valuable for its simplicity. All that is requisite for its successful application, being the employment of the annexed instrument, and the remedy used must be in a state of *solution*. A good syringe, if properly kept, will last a practitioner a life-time.

The greatest care should be taken of the tubes, by keeping them well oiled with the finest sweet oil, and a piece of silver wire should be passed through them, and retained in position when not in use. The point of the needle should always be sharp and clean.

No incision is required with the lancet, or other instrument.

The employment of the syringe.—Charge the syringe with the narcotic fluid, hold it in the right hand, at the junction of the barrel

Fig. 144.



with the pipe, and with the left hand take up, between finger and thumb, a fold of the skin of the patient, so as to make tense the part beyond your thumb, then the right hand is gently steadied, but not heavily pressed on the patient; let the point of the syringe, which is held at a right angle to the skin, touch the part which is tense, and, with a quick but steady movement, be passed through it; the point being well *through* the *skin*, the direction of the pipe may be so altered that it may run along in the loose cellular tissue beneath; this is the work of a moment; the prearranged number of drops are then introduced by so many turns of the piston; the pipe is then withdrawn, a finger making slight pressure near the punctured spot, and, lastly, a narrow strip of plaster is placed on the spot.

It must never be performed over a bony projection; but otherwise, the non-necessity of localization is the basis of this plan of treatment, so, when the brain, for instance, is disturbed, it is sufficient that the

fluid be injected into the cellular tissue of the body, or of an extremity. The most convenient site to inject is the inner part of the arm, for the skin is here thin, easily made tense and perforated.

One dose a day will act more powerfully and salutary than repeated doses on the stomach.

The dose indicated in the following table should be added to one drachm of distilled water, as that is the usual capacity of the large proportion of syringes of a hypodermic character.

Atropia, one-thirtieth grain; add one drop of acetic acid.

Analín, one-half grain, soluble in alcohol.

Aconitine, one-thirtieth grain; sparingly soluble in water, freely in alcohol.

Calabar bean, one to two grains, in an aqueous extract.

Gelsemin, half grain, soluble in water.

Nicotine, one-quarter to one-half grain, soluble in alcohol.

Narceine, one grain, soluble in alcohol.

Quinine, grains ij, soluble in water, with the addition of a little sulphuric acid.

Strychnine, one-twentieth grain, soluble in alcohol.

Sulphate morphia, grain ss, soluble in water.

If we are desirous of instantaneous effects, we would inject on one or both sides of the spinal column; if a less prompt effect is desired, on the loose cellular tissue of the limbs.

INFLAMMATION.

Inflammation consists essentially of local congestion and stagnation of blood, with exudation of liquor sanguinis, and is a condition in which there are pain, swelling, heat, and redness of the part affected.

CEREBRAL INFLAMMATIONS.

1. Encephalitis.—**DIAGNOSIS.**—There are certain symptoms common to the first stage of all acute inflammations of the cerebral organs, and, therefore, by themselves, do not indicate the actual seat of the disorder. These are: a sensation of coldness, followed by flushes of heat, lassitude, anxiety, irritability, sometimes alternating with exaltation of the intellectual faculties; pressure, or tension in the head, strong pulsations of the carotid and temporal arteries; singing noise in the head, loss of memory, great sensibility to light, constant wakefulness, mouth and tongue dry, and urine thin and copious.

SYMPTOMS in second stage are: stupidity, paralysis, dilated pupils, suppression of urine, and loss of muscular power.

Inflammation of the medullary surface.—The first stage is characterized by the following symptoms: chills, deep-seated headache—and the pain in the head is aggravated by heat, by light, and by motion; there is obstinate constipation, with a total arrest of all the other secretions; vomiting, trembling of the limbs, great agitation and convulsions, which may occur as the first symptom. Inflammation of the medullary structure is prone to terminate rapidly in soften-

ing, and hence, prompt remedial measures must be adopted. Muscular paralysis, and loss of sensation in the affected parts, are the prominent secondary symptoms.

Disease of the medulla oblongata induces paralysis of the respiratory muscles, and, when complete, instant death.

2. Meningitis.—Inflammation of arachnoid and pia mater may be produced by a fall or blow, by extension of disease from ear to nose, or by exposure to the sun, and sometimes from poison of syphilis or rheumatism, or from deposit of tubercle.

SYMPTOMS.—Watchfulness, acute headache, intolerance of light, suffusion of the eyes, and maniacal delirium. There are no precise symptoms which enable us to distinguish meningitis of the convolutions from that of the base. In either case it is the collection of serum which does the mischief, pressing on the brain and causing somnolence and coma.

3. Inflammation of the dura mater.—This sometimes occurs continuously from the petrous portion of the temporal bone and lining membrane of the internal ear; or without any disease of the bone, it extends along the track of the auditory nerve. Common among the poor, of scrofulous diathesis, especially children.

The dura mater is a nutritive membrane of bone, and sometimes small patches of bone are deposited in the membrane, which, of course, act as an irritant body.

4. Atrophy of the brain.—This may be whole or partial—the latter more common. It may arise from arrest of development in the foetal state, from the pressure of serous effusion into the ventricles in childhood, or from chronic inflammation of the hemispherical ganglion; the latter occurring in old cases of insanity.

Senile atrophy of the brain in aged persons; the brain is less perfectly nourished, and hence shrinks in bulk. The fissures between the convolutions are filled with the cerebro-spinal fluid; but though in excess, is not morbid, being a cushion which nature has provided to supply the deficiency of the brain.

5. Induration of the brain.—This structural change is the result of hyperæmia of the part, likely the state which precedes softening of the brain.

Induration of the brain usually occasions loss of memory, confusion of thought, terminating in insanity.

Partial induration is marked by progressive defect of memory, inability to pursue a long train of ideas, loss of the affections and appetites, atony of the muscles, defect of speech, palsy and convulsions.

6. White softening of the brain.—Long continued cerebral anæmia produces white softening of the brain; often occurs in infants, caused by hydrocephalus, and in old men, from disease of the arteries.

Like gangrene, it arises from two diverse causes—inflammation, and failure of the circulation from disease of the arterics.

CAUSES.—Long continued anxiety; over exertion in business; venereal excess; use of stimulants, with low diet; or any cause which cuts off the normal supply of blood from the brain, or some part of it.

This disease occurs most frequently in persons above fifty years of age. There are two kinds of cerebral and spinal softening—an inflammatory and a non-inflammatory affection, and are distinguished from each other by the microscope.

DIAGNOSIS.—Softening of the brain may occur upon an attack of acute inflammation, like hydrocephalus, or it comes on in a gradual and imperceptible manner. The more characteristic symptoms are:—Insensibility, dilated pupils, slight muttering delirium, paralysis, contraction of the flexor muscles, constipation, and a urinous smell. When the result of an anæmic condition of the brain, the disease is slow in its progress, and manifests itself thus:—Drowsiness, loss of memory, slow and imperfect articulation, constipation, absence of pain or febrile symptoms, loss of energy or ambition.

7. Hydrocephalus.—*Water on the head; dropsy of the brain.*—This is a disease almost peculiar to infants and children, and may be either the precursor or result of tubercular meningitis, when it is spoken of as *acute* hydrocephalus; but when congenital, or arising slowly from constitutional causes, it is *chronic*.

SYMPTOMS.—Child takes food eagerly, but does not thrive; extreme wasting after a few weeks; small face, with a large globular cranium; irritable and peevish, with a morbid susceptibility to noise and light; rolling movement of the eye-ball; headache; nausea; constipation; grinding of teeth, and screams on awaking.

The pulse is always slow at the commencement of the disease—seldom exceeding a hundred, and may be as low as fifty-four. Soon after the headache and vomiting begin, a reaction ensues, when the pulse rises to one hundred and thirty, or even to one hundred and sixty. It is more easily compressible than in encephalitis.

In the second stage, the pulse sinks, and becomes slow, labored, intermittent and irregular.

Retraction of the walls of the abdomen.—The belly becomes depressed at its centre and takes the form of a boat. The urine is of a deep amber hue, with an offensive smell.

DIAGNOSIS.—Distinction from phrenitis. The headache of hydrocephalus is of a lancinating, paroxysmal character, and accompanied by voluntary ejaculations.

Vertigo approaches more gradually and lasts longer than in phrenitis, and is especially felt on assuming the erect posture; the stupor is more intense and longer continued than in other cerebral affections; and rheumatic and colicky pains are found oftener in the abdomen.

The respiration and pulse do not observe their ordinary consentaneous action. The pulse may beat one hundred and forty or one hundred and sixty per minute, while the respirations are only forty to fifty. The fæcal evacuations in this disease are more tenacious, gluey, and glossy, in their properties than in phrenitis or other febrile affections.

In idiopathic hydrocephalus, the pupil is always dilated, and it is only when complicated with inflammation of the brain, or its membranes, that it is contracted.

8. Inflammation from injury of the brain.—The membranes

are liable to inflammation from injuries of the head. The symptoms are nearly the same as those of inflammation of the brain itself.

INFLAMMATORY DISEASES OF THE EAR, MOUTH AND THROAT.

1. Diagnosis of diseased condition of the meatus externus.

—It is necessary to have a clear idea of the healthy appearance of the part, and to have acquired considerable experience in the examination of such cases before you can judge accurately of the nature and extent of the disease.

The patient must be placed in a favorable condition to allow the rays of the sun to fall directly into the ear, then gently pull the upper portion of the auricle upward and backward; and, if the whole cavity cannot be well examined, a speculum should be employed. If the sun is obscured, an artificial light may be substituted. Wherever there is a discharge from the meatus, syringe the ear prior to the inspection of the meatus.

2. Foreign bodies in the ears.—The symptoms are, intense pain and inflammation; ulcerations and granulations in the meatus, which may become closed—resulting in deafness.

3. Diseases of the membrana tympani.—*Fungous membrane covering the membrana tympani.*—When this continues to adhere to the drum, it produces deafness—a very common condition of congenital deaf mutes.

DIAGNOSIS.—Expose the ear to a strong light, directing the rays of the sun into the external meatus. If the bottom be pearly white, smooth, and sensible to the probe, there is no false membrane; but, if it be of a red fungus appearance, and but little sensible to the probe, the false membrane doubtlessly exists.

4. Inflammation of the membrana tympani.—This generally extends to the adjoining parts, and usually terminates by resolution or suppuration.

Picking the ears is the most common cause; but any other irritation may produce it.

If the inflammation be acute, so will the pain and fever, which become increased by the slightest noise or opening the mouth; when chronic, less painful, mucous or serous excretion, and itching within the ear.

5. Ulcerations of the meatus externus.—That part of the integumentary system which lines the orifices leading to internal cavities, seems to be the most frequent seat of local diseases; nor is this remarkable, when we consider that the skin and mucous membrane are blended into, and insensibly assume the character of, each other. Thus, we have cases of disease within and without—adding to the frequency and obstinacy of ulcers of the meatus.

6. Abscess of the meatus.—**DIAGNOSIS.**—This is known by the purulent discharge as more sanious than pus commonly is. The hearing is soon injured; the morbid granulations grow up and overspread

the membrane, excluding the undulations of the air; or, the ulcer may spread more slowly, destroying the membrane, the small bones, and extending to the acoustic nerve.

7. Rupture of the membrana tympani.—Occasioned by the violent use of ear-picks, sneezing, but more commonly by the erosion of the membrane by acrid pus.

DIAGNOSIS.—This accident is known by air proceeding from the ear with a buzzing sound, so that a hair or the flame of a wax candle shows the current. If injections are thrown into the ear, the fluid comes out through the mouth or nose; or, by injecting a fluid into the eustachian tube, it passes out through the ear.

Many cases of rupture of this membrane originate in the severe concussion of the air from the firing of cannon.

8. Polypus of the external surface of the membrana tympani.—This may arise from any cause which produces irritation of the part, and where polypus exists, an examination quickly shows its presence, but not the point of attachment.

9. Relaxation of the membrana tympani.—This is occasioned by violent coughing, violent inspiration, sneezing, or an accumulation of mucus, pus, or rarified air in the tympanum. In this affection the membrane protrudes in the form of a pouch.

10. Morbid tension of the membrana tympani.—Such diseases of the brain and its appendages as produce morbid acuteness of the sensations, may give rise to a morbid tension of the membrana tympani. The slightest noise disturbs the individual; the south wind relieves, but the north or northeast makes him feel peculiarly uncomfortable, with neuralgia of the face.

11. Induration of the membrana tympani.—A condition in which the membrane is cartilaginous or bony.

SYMPTOMS.—Deafness; diminished sensibility of the membrane, if it be only hardened, but if it be ossified, it becomes insensible to the probe; there is a lack of elasticity, and, if firmly ossified, the membrane emits a sound when struck with the instrument. If the induration is caused by the venereal virus, the expansion of the ear is covered with scales, which may be detached, leaving the organ red.

12. Ozæna—Ulceration of the lining membrane of the nostrils.—Attended with fœtid discharge; may be succeeded by destruction of the cartilages and caries of the bones of the nose; sometimes there is a large accumulation of thick mucus, or incrustations, which sometimes entirely block up the passages of the nose. When not checked, it may extend to the cheek, producing frightful deformity.

Pseudo-ozæna from foreign bodies in the nostrils.—The natural secretion of the nose not escaping freely, putrifies sooner or later, and gives rise to an ill odor. This putrid mass acts as a local irritant, causes increased redness and vascularity; in a few weeks or months, congestion and ulceration of the Schneiderian membrane, foul secretions, fœtid smell, and the symptoms of constitutional ozæna make their appearance.

13. Swelling and inflammation of the external nose.—May be caused by a blow, contusion or fall; by abuse of mercury,

or, caused by intemperate drinking, or in scrofulous patients—characterized in the two latter by redness of the nose.

Croup.—This is an inflammatory disease of the mucous lining of the trachea, or often of the glottis, larynx and trachea. As it rarely occurs after the age of seven years it may be reckoned peculiar to infants and children.

DIAGNOSIS.—There are two principal varieties, viz. : first, the false, pseudo or non-membranous, under which, however, may be ranked the spasmodic, catarrhal and inflammatory kinds; and, second, the true, or membranous croup.

The *first* variety generally makes its appearance suddenly, with difficulty of breathing, noisy and wheezing inspirations, oppression and tightness at the chest, and sudden attacks of dyspnœa. The croupy character passes off in a few days, leaving catarrhal symptoms behind.

The characteristic symptom is the *suddenness* of the attacks—coming on, it may be, in a single hour; but these seemingly dangerous cases need not be dreaded so much as those which make their appearance in a slow and insidious manner—as in *true croup*.

Second.—True, or membranous croup, is ushered in with symptoms of catarrh, as chilliness, sneezing, sore-throat, hot skin, thirst, quick pulse, hoarse voice and checked respiration.

By placing the ear over the larynx, a buzzing sound may be heard at the rima glottidis. Even thus early, the commencement of the false membrane may be seen upon the tonsils, or upon the uvula and pharynx, which, unless the peculiar inflammation be arrested, gradually increases in thickness. The disease advancing, the febrile symptoms increase; the respiration becomes more labored—inspirations slow, expirations quick; dry cough, with *metallic* sound; cold extremities, other parts exalted in temperature; the eyes red and sunken; pulse small and frequent; the whole organism prostrated, and the child may die in asphyxia.

Inflammatory affections of the organs within the thorax.—These are generally treated as four groups: 1. Those affecting the bronchial tubes; 2. Those immediately connected with the air-cells and pulmonary parenchyma; 3. Those seated in the pleura; 4. Diseases affecting the trachea.

Bronchitis.—1. Inflammation of the larger subdivisions of the bronchi; 2. Capillary bronchitis is inflammation limited to the minute branches, or extending from them to include the larger divisions also. The smaller ramifications are affected, but not the proper capillary tubes. This disease may be acute or chronic; affects one or both lungs wholly or partially, usually the upper lobes.

1. Acute bronchitis.—**DIAGNOSIS.**—Aching and constriction sensation, extending over the whole chest; oppressed breathing; expectoration first dry, but soon becomes viscid and frothy, and may be streaked with blood; more or less cough; face red or pallid; tongue moist and covered with a white fur; bowels costive; pulse but little increased in frequency at first, but becoming very rapid as the disease advances; urine high-colored and scanty; rattling in the throat

and chest; wheezing respiration. Near the fatal termination of the malady, the skin becomes suffused with a cold perspiration; cheeks and lips pale and livid; the extremities cold; rattling and sense of suffocation in the throat; extreme prostration and complete insensibility.

In the early stage of bronchitis, auscultation often detects two dry sounds—rhonchus and sibilus. Rhonchus belongs to large bronchi; sibilus bespeaks greater danger, as denoting that smaller air-tubes and vesicles are affected.

When the inflamed membrane has poured out fluid, the dry are displaced by moist sounds—large and small crepitation. Rhonchus and large crepitation are the dry and moist sounds of larger air-passages; sibilus and small crepitation, of the smaller branches. No marked alteration is to be detected in the resonance of the chest, excepting increased resonance in emphysema, and dull percussion-note in collapse.

2. Acute capillary bronchitis.—Percussion resonance on both sides rather exaggerated than diminished; sonorous and sibilant râles diffused over the chest, the latter more prominent than in ordinary bronchitis; the subcrepitant râle on both sides, and observed especially at the inferior posterior portion of the chest. The coarse and fine mucous râles are more or less intermingled.

3. Chronic bronchitis.—Common in advanced life; not very different from the acute form; still, the duration of the affection and the absence of marked fever are the best distinguishing characteristics. The cough, though chronic, is very inconstant, sometimes disappearing altogether, then reappearing with greater severity. The sputa varies more in tenacity and quantity than in the acute form. A feeble or harsh respiration, and few or numerous, dry or moist râles, are present, according to the condition of the bronchial mucous membrane and its secretions. The sound on percussion is clear; but excessive secretions somewhat impair the pulmonary resonance, but only temporarily, for the dullness changes with the secretions.

In most cases, the chronic character of the cough, the occasional subacute exacerbations, the slight constitutional disturbance, the post-sternal pain, the clearness on percussion, all lead us to a correct diagnosis of this disease.

Œdema of the lungs.—*Pulmonary œdema.*—The serous effusion takes place mainly within the air-cells, but the infiltration extends to the intervesicular areolar tissue. The affected lung is slightly augmented in volume, and does not collapse or crepitate on pressure. As a distinct disease, it is the result of some previous malady, as Bright's disease, organic disease of the heart, scarlatina, &c. When it progresses rapidly, and becomes speedily fatal, it is known as serous apoplexy of the lungs.

PHYSICAL SIGNS.—Absence of vesicular resonance on percussion, with increased parietal resistance; subcrepitant or crepitant râle; bronchial or broncho-vesicular respiration, neither intense nor metallic; absence of respiratory sound, and, if increased vocal resonance and fremitus exist, they are not well defined.

Hæmoptysis of the lungs.—Hæmoptysis proper appears in two forms:

1. From the mucous membrane of the lungs.
2. From the tissue of the lungs.

DIAGNOSIS.—When the lung itself is the seat, the disease is accompanied with all the violent symptoms, coming on more suddenly, and with such intense oppression, as even to threaten suffocation.

In hemorrhage of the mucous membrane, on percussion, the chest is perfectly sonorous, and the stethoscope reveals the mucous rattle proportionate to the quantity of blood contained in the bronchia. Percussion elicits a dull sound over the affected part, and the stethoscope shows the want of the respiratory murmur in it, and the crepitus instead of the mucous rattle.

Extravasations in the parenchyma are rare, and much resemble those appearances in cerebral apoplexy. In complicated cases, besides tubercles in their several stages of development, there are indications of the various organic lesions to which the lungs are exposed. In complicated cases, the heart, liver, spleen or other viscera may be variously diseased.

Pneumorrhagia.—*Pulmonary apoplexy.*—This disease is characterized by extravasation of blood into the parenchyma of the lungs, either into the air-cells, or into the interlobular and intervesicular areolar tissue; in either case the blood coagulates and forms a consolidated mass similar in density to a portion of hepatized lung.

This affection is the most extreme degree or result of congestion of the lungs; hemorrhage occurring into the air-cells, obstructing respiration, it may be, to a fatal degree.

Congestion of the chest in children.—Enlargement of the capillary, and other blood-vessels of the lungs, with partial stagnation of blood. The affection may either be slight and transient, or may become serious, and result in inflammation or dangerous hemorrhage from the lungs.

There is oppression of the chest, palpitation of the heart, difficulty of breathing, sighing, with anxiety. These symptoms are accompanied by spitting of blood, or inflammation of the pleura, heart as well as the lungs.

Pneumonia.—*Inflammation of the lungs.*—This disease is ushered in with chilliness, sometimes followed by heat, when there is deep pressure in the chest increasing to an intense and constant pain, which may be either of a burning, cutting, aching, dull and oppressive, and accompanied by deep anxiety. The respiration is impeded, painful, superficial, and performed only with the uninflamed portions of the lungs. When the lungs are both implicated, respiration is only traceable in the labored action of the abdominal muscles and diaphragm; the thorax, in such cases, not expanding and rising as in health.

DIAGNOSIS.—The symptoms are so variable that it is difficult to make a selection that would be *characteristic* of the disease. The following, however, are the most prominent and trustworthy: tightness in the chest, short cough, with expectoration of a viscid, tenacious matter of a yellow, green or pale color, may be tinged with blood;

respiration rapid and difficult, with inclination to lie on the affected side; great heat of skin, thirst, headache, and, perhaps, rapid and full pulse; scanty, red urine, and may be scalding.

The fever, not intermittent, but acute, slight in the morning, and intense in the evening; the pulse soft in the morning, becomes hard and bounding in the evening. As the disease advances, the fever assumes a typhoid form. On reaching its climax, delirium often seizes the patient.

Where there are expectoration of pure blood in the first, and albuminuria in the second stage, the signs are unfavorable. Pneumonia of one lung, in a young and otherwise healthy person, should recover under judicious treatment; but it is dangerous in the aged, and where double pneumonia exists.

Latent pneumonia.—This is a peculiar modification of the disease dependent upon a marked peculiarity of the constitution. The premonitory symptoms appear to be absent, commencing with the second stage, or that of hepatisation.

DIAGNOSIS.—It is apt to be confounded with pleurisy, and the history of the case will distinguish it from phthisis.

Phthisis pulmonalis.—*Consumption.*—**DIAGNOSIS.**—The occurrence of phthisis is usually between the ages of eighteen and thirty; not a few, however, die of tubercles, before the age of puberty.

DIAGNOSIS.—One of the primary symptoms indicating the approach of phthisis, is an *undue shortness of breath* after exercise. In phthisis there are hæmoptysis, wandering pains, tightness and constriction at the chest, extreme sensitiveness of the lungs to cold air, a dry morning cough, percussion yielding a dull sound in the clavicular region, and more or less absence of the respiratory murmur.

In our diagnosis it is highly important to ascertain whether any hereditary predisposition exists to tuberculous affections; whether from occupation, previous habits and excesses, the patient has not acquired such peculiarities of constitution as to render him obnoxious to attacks of phthisis, and whether the physical conformation of the chest is such that the lungs can have ample room to perform their functions.

Dullness on percussion, act of expiration prolonged, a systolic bruit under one or both clavicles, large crepitation; cavernous respiration, if cavity be empty or nearly so.

Pneumo-hydrothorax.—This is not a primitive disease, but the consequence of some antecedent condition—often a complication of pulmonary tuberculosis. When it succeeds this affection, it arises from a perforation of the lung, resulting from rupture of the pleura over a cavity, or a collection of softened tubercle, broken into during an act of coughing. Pneumo-thorax becomes developed, and acute pleuritis follows, with liquid accumulation.

The size of the perforation, its persistence in remaining open, and the freedom of communication between the pleural cavity and bronchial tubes determine the character of the symptoms. More frequently on the left than on the right side, on the postero-lateral surface, between the third and sixth ribs. It may be associated with pulmo-

nary apoplexy, tuberculous affection of the bronchial glands, abscess, cancer, hydatids, chronic pleuritis and emphysema.

Tympanitic sonorousness is greater the nearer we go to the summit of the lungs. Tympanitic sonorousness also exists where there is gas in the stomach, but is greater below—diminishing as we ascend. Metallic tinkling is peculiarly characteristic of pneumo-hydrothorax, in cases involving perforation of the lungs.

Pleuritis—Pleurisy.—Inflammation of the pleura runs an acute or chronic course.

Acute pleuritis has three stages of progress: 1st, the *dry* period, which continues from the commencement of the inflammation to the accumulation of but an appreciable quantity of the liquid effusion within the pleural sac; 2d, where the liquid effusion is progressing, and the 3d period is that of absorption of the liquid effusion.

During the first stage the sonorousness, on percussion, is but little altered. A diminution of the vesicular resonance, replaced by a tympanitic sonorousness, shows a lessening of the capacity of the lungs, which accounts for the pain accompanying the inspiratory act. Percussion is followed by pain. The stage of effusion progresses rapidly, being seldom delayed beyond the fourth day. The vesicular resonance is always abolished; the sound becomes flat, and the elasticity of the thoracic wall is diminished. Perfect *flatness* affords presumptive proof that effusion exists.

The respiration is feeble in the affected side during the stage of liquid accumulation.

Pain is a prominent symptom during the first period; it is sharp and lancinating, and most severe at the moment of inspiration; it diminishes as effusion progresses. Dry cough is always an accompanying symptom.

Chronic pleuritis.—This affection is subacute from the first, and the effusion is greater than in the acute variety. It has two stages: 1st. That of accumulation, which is generally of great duration. 2d. That of absorption, which may extend through weeks or even months.

DIAGNOSIS.—Percussion gives a flat sound on the affected side; tympanitic resonance at the summit; a decided want of resistance and elasticity of the thoracic parietes, showing the pleural sac to be filled with fluid, compressing the lung into a small space. Bronchial respiration is feeble, and sounds as if distant. The respiratory murmur is vesicular, but intensified on the healthy side. The heart is displaced from the affected side, and the diaphragm depressed. As the absorption is completed, the displaced organs recede towards their natural position.

To recapitulate: In *pneumonia*, the pain is in the lung, deep and intense; dilated nostrils, peculiar flush on the cheek, quick pulse, no friction sound, but moist rales; rust-colored sputa; dullness at the base, unless the whole lung is congested.

In *phthisis*, the dullness is at the apex, as tubercle deposits itself by preference there; pulse 90; nails clubbed; no flush on the cheek, unless it be hectic; cough, expectoration, moist rattle; hemoptysis, night-sweats; abnormal amount of phosphates and chlorides in urine. .

In *pleurisy*, the sharp, lancinating pain in the pleura; friction sound detected from second to sixth day; accelerated circulation; respiration performed by diaphragm and abdominal muscles, are purely diagnostic.

In *hydrothorax*, dullness at base, but no flush on the cheeks; no dilated nostrils, but rather pinched; generally disease of the heart.

Emphysema.—Two varieties, one consisting of enlargement of air-cells; atrophy of their walls; obliteration of the blood-vessels of the affected part. This constitutes vesicular emphysema. The other variety consists in an infiltration of air into the interlobular tissue, the consequence of a portion of the areolar tissue not having acquired its full power of resistance, or, if formerly acquired, of having lost it by some morbid change. This form is known as interlobular emphysema.

In either form there is habitual shortness of breath; great distress, with difficulty of breathing; frequent paroxysms of asthma, incapacitating the patient for any active occupation.

INFLAMMATION OF ORGANS AND TISSUES CONNECTED WITH THE DIGESTIVE SYSTEM.

1. Glossitis.—*Inflammation of the tongue.*—Inflammation of the tongue is rather an uncommon disease; but, when it exists, the sufferer is in imminent danger of suffocation. It may arise suddenly, with but few premonitory symptoms, or it may proceed from derangements of the stomach, sudden changes of temperature, or the application of irritating or poisonous substances.

DIAGNOSIS.—Previous to the pain and swelling of the tongue, the patient is affected with slight chills, loss of appetite, lassitude, dull pains in the head and back, followed by throbbing and aching pains in the tongue, heat of skin and rapid pulse. Then the tongue commences swelling and rapidly progresses to an alarming extent, unless the inflammation be arrested.

2. Herpetic glossitis.—**DIAGNOSIS.**—Redness of the mucous membrane and development of the papillæ, or exfoliation of the epidermis thelium; afterward, partial induration, fissures, ulcerations and transformations of the epidermic tissue, smarting shooting pains caused by contact of food and drink, with a permanent sense of dryness.

Aphtha.—*Thrush.*—In adults it occurs generally in the course of other diseases, and indicates *debility*, imperfect digestion and malnutrition. The severest cases are those of *stomatitis materna* in nursing females, and those of infantile aphtha in children at the period of lactation.

1. Aphtha infantiles.—This appears in small white ulcers upon the tongue, gums, and around the mouth and palate, having the appearance of small particles of curdled milk; when the disease becomes violent and of long standing, it may extend through the whole course of the alimentary canal, or the œsophagus at least.

These ulcers are in the form of white, creamy, circular spots, which are scattered but tend to coalesce at their margins. The disease

is characterized by drowsiness, sickness, feverishness, severe purgings and flatulencies; the local affection runs into a kind of gangrenous ulceration, and the discharges from the bowels contain slime and shreds. Aphtha, sometimes appears as a chronic disease in warm, moist and malarious climates. There is little febrile heat; but, the skin is dry, countenance pale, the pulse is small, and the extremities cold.

2. *Mercurial stomatitis*.—This is a result of mercurial poisoning, and the salivation appears in advance of the membranous formation. This salivation entirely differs from that which accompanies other pseudo-membranous affections.

3. *Ulcerο-membranous stomatitis*.—Presents quite a different appearance from the last; in such cases, there is always some ulceration beneath of a soft and yellowish cast. The edges are swollen, the base ecchymosed, and sometimes of a brownish color, and the submaxillary glands are engorged.

4. *Chronic exanthematous eruptions of the intestinal canal*.—SYMPTOMS.—General debility and emaciation; a broken-down constitution without any very palpable cause; the muscular system easily fatigued and exhausted; sometimes, palpitation; or may be weak circulation, indicated by the coldness of the extremities, and irritability.

5. *Stomatitis materna, or nursing sore throat*.—In this affection anæmia is usually present, the complexion is not so clear and waxy as in chlorosis; but, of a sallow tint, which is peculiar, and easily recognized at first sight. Diagnosis depends on the general condition of the patient; but is not nearly so fatal as the aphthæ of advanced phthisis.

Parotitis.—*Mumps*.—Children are more liable to this affection than adults, and it prevails during cold and damp seasons. A specific morbid contagion is its cause, which may be generated during certain peculiar conditions of the atmosphere, or it may be communicated from the bodies of those having the disorder.

DIAGNOSIS.—More or less febrile disturbance, succeeded by swelling and pain in one or both parotid glands. In favorable cases, the inflammation and swelling reach their height about the fourth or fifth day; then pain and tumefaction gradually subside, until about the expiration of a week or nine days from the commencement, when all traces of the affection have departed. Patients thus affected have much difficulty and pain in moving the jaws or in masticating. When the disease affects one side only, the face is drawn to one side.

Tonsillitis.—*Quinsy*.—DIAGNOSIS.—Febrile symptoms, followed by soreness of the throat, painful deglutition, swelling, and smooth, scarlet redness of the tonsils, uvula and soft palate. Deglutition and respiration become difficult in proportion to the enlargement of the tonsils; the voice is changed, and the pains increase in severity, and may extend through the eustachian tubes into the ears; thick, yellow fur on the tongue, and an offensive odor of the breath. This disease may terminate in resolution, suppuration, or permanent induration.

Angina maligna.—*Scarlatina maligna*.—DIAGNOSIS.—The eruption is sometimes absent, or only partially developed in irregular blotches of a pale color; the heat of the skin is sometimes below the

natural standard; the pulse frequent and weak; the eyes are dull and suffused; ash-colored ulcers in the throat; inflamed fauces, larynx and bronchia; the tongue red, strawberry, but soon becomes black and dry. Sometimes the inflammation seizes upon the laryngeal, bronchial or intestinal mucous membranes; then the case becomes more formidable. It is the result of a specific morbid contagion.

Inflammation of the pharynx.—*Pharyngitis*.—Not a common affection, but occurs sometimes in hospitals and work-houses, where it often assumes an erysipelatous character; but may be brought on by cold and by other causes of inflammation.

Laryngitis.—This affection is rather a dangerous disease, from the situation rather than the extent of its development; it is especially so in young people, in whom the formation of the false membrane occurs. In the adult the inflammation brings on infiltration, which swells out the mucous membrane too thick for serous transudation, and terminates in that fatal affection, œdema glottitis.

This affection is common in adults, but croup seldom occurs except in children; also, in the latter there is no pain in swallowing, but in the former there is pain on swallowing.

Chronic laryngitis.—Complete loss of voice, larynx painful on pressure, painful deglutition, and emaciation from inflammation of the epiglottis. After this affection has progressed for a while, it assumes the symptoms of phthisis pulmonalis, with which it is often associated.

Diphtheria.—The characteristic feature of this disease consists in the exudation of an albuminous effusion on the mucous surfaces of the fauces and air-passages. It is an epidemic and contagious sore throat of great severity, to which children are more obnoxious than adults, and most common among the poor, or those who live in damp localities and badly drained houses.

It is distinguished from scarlatina by the absence of the eruption, and by the peculiar brick-dust-like flush of the throat, and “strawberry tongue.” Scarlet fever, however, predisposes to diphtheria as a subsequent attack. Membranous croup is a sporadic and sthenic local phlegmasia, whose symptoms are dependent upon the local affection; whereas, diphtheria is a constitutional disorder, generally epidemic, in which the local symptoms are secondary. The commencement of the pseudo-membranous deposit, in diphtheria, is about the tonsils and pharynx, whereas in croup it is in the trachea or larynx. Diphtheria seldom extends, in any case, below the larynx; but croup, not unfrequently, extends to the bronchial tubes. But when the laryngeal complication has occurred in diphtheria, the croup-like symptoms are nearly the same as those of any other laryngeal obstruction, and thus similar to those of croup.

Diphtheria is distinguished from thrush and aphthæ by the deposit being much larger and thicker, never vesicular, and usually duller in color, as well as being accompanied by more severe constitutional symptoms. Thrush begins in the mouth; much more uncommon in adults than diphtheria, and is not, like diphtheria, epidemic. Simple diphtheria is not very fatal, but the croupal form is, as also the malignant, in the majority of cases.

INFLAMMATION OF THE ABDOMINAL VISCERA.

Gastritis.—*Inflammation of the stomach.*—**DIAGNOSIS.**—Lancinating, pricking or burning pains in the stomach; tenderness and pain on motion or pressure; nausea and vomiting; great thirst for cold drinks, which are ejected nearly as soon as swallowed; pricking pain in the throat and œsophagus; white or yellowish fur on the centre of the tongue, and red on the tip and edges; abdominal muscles relaxed, and limbs drawn up; great depression, anxiety, and fear of death; pulse rapid, contracted, and sometimes thread-like; loathing at food and warm drink; constipation; in severe cases, delirium and fever; abnormal fullness in the epigastric, and sometimes in the abdominal regions. As the disease advances, the extremities become cold, the features contracted and sunken, the eyes glazed or suffused, and diarrhœa, cold sweats, coma and convulsions set in.

Chronic gastritis.—This may be the result of a partially subdued chronic attack, or it may come on slowly and insidiously, from a combination of causes. The symptoms are identical with those of dyspepsia. There is no fever.

Ulcer of the stomach.—In this affection there is obstinate vomiting, continuing, it may be, for months after symptoms of active inflammation have subsided. The stomach is distended, and feels like a large tumor, which is removed by the expulsion of a gallon or even more of fluid. Epigastric or dorsal pain, increased by pressure. Sympathetic pain in the back at a corresponding point to that in the abdomen.

Gastromalacia.—*Perforation of the stomach.*—**DIAGNOSIS.**—The characteristic symptoms resemble those of cholera, gastritis, hydrocephalous fever, or slow nervous typhus. The abdomen is distended, the region of the stomach hot to the touch, and painful when pressed; quick pulse and insatiable thirst; persistent vomiting of greenish, slimy, sour-smelling fluid, and diarrhœa of watery, green, or sour-smelling stools; oppressed breathing, with dry cough; sudden collapse of the features and emaciation. The screams gradually change to a mere moaning; stupor and delirium increase, till at length convulsions and death ensue.

PROGNOSIS.—Discouraging, but not always hopeless.

Hypertrophy of the stomach.—This is a disease that generally attacks persons beyond the prime of life, and who have been addicted to drinking. It is usually confined to the pyloric end of the stomach.

DIAGNOSIS.—The disease is far advanced before the general system is much affected; the early and prominent symptoms are, morning sickness, and want of appetite; in the later stages, constant retching and nausea, drinks longed for, but soon rejected when drank. Everything introduced into the stomach causes pain, and is thrown up, together with a quantity of the vitiated secretions from the mucous lining of the stomach; alternation of heats and chills; the pulse is quick and the tongue furred.

Duodenitis.—In jaundice there is generally inflammation of the duodenum, though the icteric hue of the skin is not a necessary con-

comitant of duodenitis. (*Vide* Jaundice.) The duodenum bears a similar relation to the liver that the mouth has to the parotid gland.

Gastro-enteritis.—This may present itself in two forms—one, where the gastric symptoms are characteristic; the other, where the intestines are the seat of the disease. The symptoms are, pain in the stomach, nausea, vomiting, and inability to bear nourishment, colic, diarrhoea and tenesmus.

Milk sickness is an endemic disease, and differs from acute gastritis by the constant recurrence of the vomiting, which, in gastritis, only occurs when something is swallowed which irritates the stomach. The peculiar fetor of the body, and the character of the matters vomited, are distinctive characteristics.

Peritonitis.—There are three varieties: 1. Acute peritonitis; 2. Puerperal peritonitis; 3. Chronic peritonitis.

1. *The acute form.*—Marked by the usual symptoms of fever; irregular chills, followed by flushes of heat, headaches, frequent pulse, uneasiness, pressure in the region of the stomach, nausea, and loss of appetite; tenderness in the abdomen, either circumscribed or universally diffused; the weight of the bed-clothes intolerable to bear; moist tongue, with a white fur, which becomes dry and dark in the centre, with red edges; pulse frequent, tense and wiry; countenance contracted, with an expression indicative of physical and mental suffering.

2. *Puerperal peritonitis.*—Peculiar to females after confinement, known as puerperal fever. Distinguished from ordinary peritonitis in being more sudden and violent in its attack, and in its tendency to run its course with greater rapidity. Symptoms are, pain and tenderness in the hypogastric region shortly after delivery, followed by chills, lochia generally suppressed, or may not occur at all. The brain is frequently affected, and demands prompt attention. Stranguary, causing constant burning pain, and an almost complete absence of “the maternal feeling,” are symptoms, particularly the latter, peculiarly indicative of the disease.

3. *Chronic peritonitis.*—This disease may either be the sequel of an acute attack, or, which is more common, an independent affection. The symptoms are similar to those of dyspepsia; but, in addition, there are, abdominal enlargement from effusion, anemia and wasting, &c. The disease may terminate in a few weeks, or run on for a year or two, and result in ulcerations opening into the intestines.

Dysentery.—This disease prevails to an alarming extent in America, especially in the South, and in malarious districts, where it often occurs as a concomitant of remittent, typhoid or congestive fever.

DIAGNOSIS.—Gripping pains in the bowels, with frequent discharges of mucus mixed with blood, with more or less straining and burning pain. After the first few evacuations nothing but mucus and blood are passed.

The appearance of the fluids discharged depend upon the climate, temperament, the exciting cause, and the portion of the intestinal canal affected.

If the small intestines are affected, the evacuations consist of dark watery matter, with mucus and blood; if the colon and rectum, the

discharge is pure mucus and blood. The discharges, which are highly offensive, afford temporary relief to the patient, only to be renewed with increased severity. There are, tenderness of the bowels on pressure, pain and burning in urinating, short painful inspirations, heat and dryness of the skin, disordered function of the liver, and rapid emaciation. As a fatal termination ensues, the countenance assumes a contracted and cadaverous expression, the pulse sinks, the evacuations become more fetid, and are discharged involuntarily, the pains abate, cold sweats occur, with extreme prostration.

Malignant ulceration of the colon.—**DIAGNOSIS.**—This disease is preceded by dysentery, which may become chronic; the ulceration progresses through the coats, and as an effort of nature to prevent rupture into the cavity of the abdomen, lymph is poured out, and adjacent organs, as the bladder and vagina, become agglutinated together. Perforation is accompanied with shivering and delirium.

Carcinoma of the rectum.—*Cancer of the rectum.*—In this affection the local pain is either dull and aching, or acute and lancinating; there is a sense of weight, with uneasiness about the loins and pubes. The fæces often passed in a liquid state, and mixed with blood and mucus.

Females are afflicted with irritation of the bladder, incontinence of urine, with pain in micturating. Fæcal accumulations also cause bearing down of the uterus.

Palliative treatment is all that can be done in such a melancholy disease.

Inflammation of the liver.—*Congestion.*—This is generally complicated with congestion of other abdominal organs as well. It sometimes arises from a sudden suppression of the cutaneous respiration, which is the result of a change of temperature.

DIAGNOSIS.—When the liver is engorged with blood from an impediment in the circulation, the organ increases in size, which may be recognized by feeling its edge some two or three inches below the false ribs. In estimating its relative size and position, it should be remembered that it sinks an inch or more after a full inspiration, in the erect posture, by fluid in the cavity of the pleura, or by a bloated emphysematous lung.

Congestion is readily distinguished from inflammation by the shortness of the time that has transpired from its commencement.

Acute inflammation of the liver.—1. *Adhesive inflammation or hepatitis.*—*Inflammation attended with effusion* of coagulable lymph may exist on the surface of the liver, or, which is more common, may penetrate its parenchymatous substance.

DIAGNOSIS.—When the convex surface is affected, there is a sense of fullness, with a severe pain, of a sharp, aching or burning character; pains reaching the chest and top of right shoulder, short, dry cough, hot and dry skin, thirst, constipation, scanty and high-colored urine, difficulty in lying upon the left side, headache, with more or less mental disturbance.

When the *concave* portion is the seat of the disease, besides the foregoing symptoms, there are nausea and vomiting, white or yellow-

coated tongue, with bitter taste and urgent thirst, aggravation of pain in the hypochondrium on pressure, urine scanty, and of a yellow or saffron color, skin and eyes tinged yellow, bowels either relaxed or constipated, pains in the back and limbs, mind clouded or delirious.

The peritoneal covering of the liver is generally involved, rendering the symptoms more severe. The distinguishing symptoms vary according to the acuteness of the attack, and the stage in which it occurs.

2. *Suppurative inflammation of the liver.*—The liver is peculiarly liable to the formation of abscesses, generally caused by ulceration of some part of the alimentary canal, the gall-bladder or ducts, the veins of which empty into the portal system. They convey the purulent matter, the poisonous fluids generated by the softening of tissues, and the fetid gases and contents of the large intestine; all these, when absorbed, pass directly to the liver. Such fluids as dissolve in the blood cause diffuse inflammation of the liver; and those morbid matters, that do not readily mix with the blood, produce circumscribed abscesses.

DIAGNOSIS.—The disease is apt to be overlooked during life, as the characteristic symptoms are often indistinct. The pain in the right shoulder indicates that the disease is in the right lobe of the liver. Abscess of the liver is known by the presence of a soft tumor, which fluctuates on pressure. There is jaundice-like color of the skin, sudden emaciation of the whole body, and fever, with periodical exacerbations.

Inflammation of the gall-bladder and ducts.—**DIAGNOSIS.**—Easily distinguished from inflammatory jaundice, by the early appearance of a large, moveable, pear-shaped tumor, occasioned by projection of the gall-bladder, which is painful and tender.

Ulceration of the gall-bladder.—Such a lesion often occurs in severe forms of intermittent fever; but it is, also, often associated with the presence of gall-stones, which often close the cystic and biliary duct.

This state terminates in incurable jaundice, and certain death.

Chronic hepatitis.—**DIAGNOSIS.**—The symptoms are similar to those of the acute form, but milder in their character. The pains are of a dull, heavy and vague character; great weakness and loss of energy throughout the whole system; trembling of the knees on the least exercise; dejection and indifference to life; enlarged and induration of the liver.

Hypertrophy of the liver.—The right hypochondrium gives resistance on palpation; hard lumps may exist on the edge of the liver; pressure thereon causes sharp pains, with difficulty of breathing. The left side sound, and no disturbance of the circulation.

Fatty degeneration of the liver.—The greater portion of the superabundant fatty matter in the liver exists in the form of oil-globules, within the nucleated cells of the affected organ. In this affection the number and size of these oil-globules is enormously increased; sometimes as much as a half of the entire bulk of the liver is composed of them, besides, being much larger than natural. When the quantity of oil is less, the liver has what is termed the "nutmeg" appearance. There is great distension of the abdomen, causing considerable inconvenience.

With the increase of the fatty matter, which was intended to constitute a portion of the bile, the disease advances, the excess of fatty matter becomes a poison by its presence, obstructing the process of secretion.

The disease having advanced, the effects on the general system, and on the tuberculous degeneration of the liver, reveal its character. On the other hand, the disease may be going on, undiscovered, until after death.

Cancer of the liver.—The most prominent symptoms are; enlargement of the liver, with constant pain and tenderness, till it descends below the false ribs; its surface is frequently tuberculated with cancerous growths, and is irregular and knobby to the feel on applying the hand. In a few cases, the size is diminished. The enlargement comes on in the middle of life, is progressive, and no probable cause for it. Jaundice is common, and there may be ascitic effusion. There is no obstruction in the circulation of the chest, and the patient is not consumptive. The prognosis is always unfavorable.

Splenitis.—*Inflammation of the spleen.*—The symptoms are liable to be confounded with those of disease of the left lung, the heart, the diaphragm, peritoneum, the stomach, the left lobe of the liver, the cauda of the pancreas, the omentum, the descending colon, or the left kidney.

The symptoms most characteristic of the disease, are the following: functional disturbance of the stomach; a longing for unusual articles of food, sour or bitter taste in the mouth; thirst; redness, dryness, with white or yellow coated tongue; sponginess of the gums, with offensive breath; ptialism, nausea and vomiting; hardness felt by the hand in the region of the spleen; and obstinate constipation with, it may be, colic pains.

The spleen is commonly enlarged in intermittent, remittent and typhoid fevers, in leucocythemia, and sometimes in pregnancy.

Pancreatitis.—*Inflammation of the pancreas.*—This affection is generally accompanied with pain beneath the pit of the stomach, increased by bending the body forward, and but little affected by pressure; a sense of constriction at the præcordia; abnormal dryness of the fauces; thirst, with symptomatic fever; heat and tension at the epigastrium, and the organ being tumified, there is pressure upon the bile-ducts, producing jaundice.

The symptoms in chronic cases are similar, but less severe—the pain, tension and heat, are only felt after a meal. There are flatulence, eructations, pyrosis, and uneasiness in the back, and sometimes salivation.

Nephritis simplex.—*Inflammation of the kidneys.*—**DIAGNOSIS.**—This affection has all the usual febrile symptoms, which are soon succeeded by deep-seated, aching pain in the region of the kidneys; urine scanty and high colored; inability to lie upon the healthy side, upon the stomach, or on the diseased side with the muscles extended; severe pains on rising up to the erect posture, or from walking, riding or running. Pressure over the inflamed kidney does not occasion pain, but any motions calling into exercise the deep-seated

dorsal or lumbar muscles, excite acute pain. Left kidney more frequently affected than the right; pain at first aching, oppressive and dull; afterwards becomes violent and lancinating; pain extends along the ureters to the bladder, or spermatic cord to the testicles; urine scanty and bloody, with constant desire to urinate; there are nausea, eructations, vomiting, flatulence and constipation; tenesmus and pains in the rectum from contiguous sympathy; also, retraction of the testicle when complicated with calculi. Nephritis is distinguished from lumbago, inflammation of the psoas muscle, and neuralgia, by the character and direction of the pains.

In a few cases chronic *induration* of the kidneys succeeds the *acute* symptoms, which degenerates into a true scirrhus, and, in rarer cases, the vitality of the part becomes destroyed, and *gangrene* is the result. Gangrene is recognized by the pale, sunken, and death-like expression of countenance, cold clammy sweats.

Bright's disease, acute.—The recognition of this disease is not difficult. There are pale and puffy face, general dropsy, and albumen in the urine, associated with tube-casts—symptoms characteristic of the malady.

Distinguished from acute nephritis thus: in acute nephritis there is generally only one kidney affected; there is greater pain and tenderness in the lumbar region; by the retraction of the testicle; the higher degree of febrile excitement; and the deeply colored urine that is voided contains little or no albumen.

Albumen in the urine may also exist in pneumonia, in acute rheumatism and gout; but the quantity found is small and transitory, very unlike what it is in the persistent albuminuria of Bright's disease. A microscopical examination of the urine is the most valuable aid in forming a diagnosis.

In simple albuminuria there is no exudation; hence no tube-casts can be detected in the urine.

Bright's disease, chronic.—The transition from the acute to the chronic condition is indicated by the disappearance of blood from the urine, by its lower specific gravity, and a diminution in the amount of albumen; also frequently, by a diminution of the anasarca.

The most reliable characteristics are the increasing anemia, and the presence of albumen and tube-casts in the urine.

The alteration in the blood is more marked than in almost any other disease. The blood corpuscles steadily diminish, and the albumen is generally greatly reduced in quantity; besides, the blood often retains its effete ingredients, owing to the kidneys being incapable of performing their functions.

These phenomena are accompanied by increasing debility, and the pallor and waxy complexion of the countenance.

Several forms of chronic enlargement of the organ exist: 1st, the fatty kidney, pre-eminently Bright's disease; 2d, the waxy kidney; 3d, the enlarged, chronically inflamed kidney; and, 4th, the small, *contracted* kidney, generally considered as the last stage of Bright's disease.

This disease is frequently complicated with chronic rheumatism, chronic bronchitis, cardiac dropsy, or gastro-intestinal disorders.

Cystitis.—*Inflammation of the bladder.*—**DIAGNOSIS.**—Accompanied by all the symptoms of fever, and the patient experiences deep-seated, lancinating pains and sense of weight in the hypogastric region; pain, and frequent desire to urinate; acute or dragging pains in the loins, ureters, perineum and the anus; swelling and distension of the abdomen; great difficulty in passing the fæces, cold extremities, delirium and convulsions. When the whole interior surface of the bladder is affected, the urine is red and tinged with blood.

Dysuria.—The urine in this affection, though it is passed voluntarily, is voided in a small spiral stream, or drop by drop, with burning, cutting pains at the neck of the bladder. There are pressure, tenesmus and frequent inclination to urinate. The inflammation is limited to the neck of the bladder, and seldom gives rise to constitutional disturbance.

Irritable bladder arises from long-continued inflammation, which ultimately so impairs the function of the bladder that the presence of a small quantity of urine causes it to contract, and thus forms an incontinence of urine. The disease is distinguished from stone by the relief which follows evacuation of the bladder—this only aggravating the painful sensations in the latter affection.

Suppression and retention of urine.—In retention, the urine is secreted as usual, but the power to evacuate the bladder is lost; whereas in suppression of urine, or ischuria renalis, the secreting power of the kidneys is partially or completely lost. The latter affection is attended with danger, as it often induces coma and effusion upon the brain, which effusion possesses a decidedly urinous smell. In such cases the saliva, the sweat, the pulmonary exhalations, the bile, the pancreatic and gastric fluids, all become impregnated with a fluid possessing the appearance, taste and odor of urine. Suppression sometimes occurs from gravel in the structures of the kidneys, causing a mechanical obstruction to the healthy performance of their functions. The foreign bodies may operate by causing inflammation, spasms, induration or ulceration.

Ischuria may be distinguished from retention of urine from the circumstance that, in the latter disease, the bladder is distinct, rises up above the pubis, offering to the pressure of the hand a firm resisting body, while in the former complaint this viscus is empty, falls below the pubis, and affords no resistance or fluctuation. Retention of urine gives rise to distension of the bladder, ineffectual attempts to urinate, anxiety, general uneasiness, and more or less constitutional disturbance.

POISONS.

Toxicologists have classified these somewhat variously; but it will suffice our purpose to group them thus: 1. Irritant; 2. Narcotic; 3. Unclassified.

1. Irritable or corrosive poisons.—The acids belong to this class, as *sulphuric*, *nitric* and *muriatic acids*. The antidotes for these are the alkalies, such as the carbonate of soda, potash, magnesia or lime, in a state of solution.

Oxalic acid.—An excellent antidote for it is the free use of lime water.

The alkalies, likewise, belong to the same division, such as caustic, soda, potass., strong solution of ammonia, the earths, baryta, lime. Quite efficient and easily procurable antidotes for these are vinegar and lemon-juice; by employing either of these a neutral salt is formed. Castor or olive oil will saponify the alkaline substance, and so render it harmless.

Corrosive sublimate of mercury.—This powerfully corroding and speedily destructive poison is antidoted by the white of eggs, or wheat flour mixed with water, when an albuminate of mercury is formed.

Arsenic, or rather *arsenious acid*, (As. O^3).—The hydrated peroxide of iron is a favorite antidote. It should be prepared fresh by adding water of ammonia to liquor persulphate of iron, or to the chloride tincture of iron. It must be administered both promptly and freely.

Sulphate of copper, or *salts of tin*.—White of eggs, milk, or flour mixed with water should be given freely.

Tartar emetic.—An infusion of galls, oak bark, or tannic acid in solution, copiously administered, succeeded by opiates, will soon soothe the irritated stomach and bowels where promptly administered.

Acetate of lead.—Sulphate of magnesia is the antidote which forms the inert sulphate of lead.

Sulphate of iron and *sulphate of zinc* are antidoted by a solution of carbonate of soda freely administered. Flaxseed tea furnishes an excellent diluent for any corrosive poison.

Nitrate of silver.—Common salt is a sure antidote; inert chloride of silver is formed.

Phosphorus.—A mustard emetic is the first thing; magnesia and mucilaginous infusions may then be given speedily and copiously.

In *any* poisoning, not accompanied by vomiting, it is always desirable to give a mustard emetic.

Iodine.—The neutralizing agent is starch; but it will not neutralize iodide of potassium.

Creosote.—White of eggs, milk, or flour and water, will unite with it; free draughts of water should also be given from the very commencement.

2. Narcotic poisons.—The principal of these is opium.

TREATMENT.—Rarely fatal, if seen before the comatose state. Clear out the stomach with sulphate of zinc or stomach pump. Rouse the patient and keep him awake, alternately dashing cold and hot water on the face and back. In children, artificial respiration is

especially beneficial. Clear out the bowels with castor oil; coffee to swallow; or, if not, inject the same into the rectum.

Belladonna is, perhaps, as good an antidote as we possess; the tincture should be given in twenty-minim doses say every hour. In extreme cases *Faradisation* is sometimes employed; the interrupted current being applied to the spine and chest. Should all other means fail, galvano-puncture is justifiable; the fine needle being made to penetrate so as to reach the diaphragm, for the immediate stimulation of its muscular power. The needle should be of soft-tempered steel, platinized, three or four inches long, with a lance-shaped point.

Belladonna.—The best known antidote that we possess is opium; its antidotal action seems rather to be physiological than chemical. Opium also bears the same relation to those cases where the poisoning is due to the effects of either stramonium or hyoscyamus.

3. Unclassified poisons.—*Prussic acid*.—While no certain antidote is known for this poison, the following has been recommended by a highly respectable chemist as almost a sure antidote:

Take of liquor of perchloride of iron, fifty-seven minims; crystals of proto-sulphate of iron, twenty-five grains; as much water as will make a solution of a proto-sesqui salt of iron—about half an ounce. Dissolve, on the other hand, seventy-seven grains of crystallized carbonate of soda in about half an ounce of water. These quantities destroy the poisonous action of between one hundred to two hundred drops of prussic acid, officinal strength, by giving first the one liquid, then the other.

For *cyanide of potassium* the antidote is the same, except that the solution of proto-sesqui salt of iron is to be used without the soda solution; the hydrocyanic acid having been already combined with an alkaline substance. The use of the soda would, however, not be injurious. The above quantities would decompose thirty-five grains of the cyanide of potassium. The old treatment consists in cold effusion, chlorine water and ammonia.

Digitalis, *hemlock*, *aconite*, *ergot*, *tobacco*, *lobelia*, *veratrum*, *strychnia*, &c., have not any known antidotes; but emetics should be given in every instance promptly and repeatedly, when necessary, and these should be succeeded by castor oil. Of these just enumerated aconite, veratrum, lobelia and tobacco are the most powerfully sedative.

Animal charcoal is valuable in absorbing and rendering organic poisons in the stomach innocuous. Let teaspoonful doses be given, and frequently repeated; chloroform is beneficial for the spasms caused by nux vomica, when freely inhaled.

For *tobacco*, *lobelia*, *aconite*, *veratrum viride*, taken poisonously, brandy or other powerful stimulants is indicated, and generally will prove of great benefit.

MONOGRAPH ON SURGERY.

Incisions, in their variety and application, constitute a large portion of operative surgery. Some incisions are made with special instruments, but the most common instruments are the bistoury and scissors.

Positions of the bistoury.—1. As a pen; 2. As a pen edge upward; 3. As a carving knife; 4. As a carving knife, edge upward; 5. As a fiddle bow.


The position of the scissors.

The last phalanx of the thumb passed through the upper ring, the phalanx of the ring finger through the lower, the middle and index fingers placed in front under the lower handle, the little finger free.

All instruments should be warmed to the temperature of the body, 80°; this ought to be observed in all cases.

Incisions are made in two ways, from the skin to the deep parts, and, from the deep parts to the skin. Incisions through the skin are ordinary incisions; under the skin, subcutaneous incisions.

Whatever the method may be, the incision may follow five different directions: 1. Toward the operator; 2. Before or from him; 3. From left to right; 4. From right; 5. From above downward. Incisions should be made in the axis of the limb, parallel to the nerves and blood-vessels. All simple incisions should be made their full length and depth at one stroke—in all cases extend the skin before commencing the incision—let the tension be the same on both sides.

COMPOUND INCISIONS are very varied, but they embrace five principal forms V and T, crucial X, elliptical , and in the form of a crescent.

They are subject to the following rules: all branches of a compound incision should be made as a simple incision; when one incision falls upon another, the second should always terminate in the first and never begin from it. When two incisions have to be made, one above the other, the lower should be made first, so that the blood should not hide the situation of the first.

Incisions from within outward are made with the bistoury, with or without the director. Without the director, the incision may be made in various ways. With the director, the usual mode is to introduce it under the skin, right up to where the incision should terminate; the point of the bistoury is placed in its groove; then the bistoury in the second position, at an angle of 45°, is passed to the end of the director, cutting as it goes; then raise it perpendicularly, and bring it out the same moment as the director.

Subcutaneous incisions are made with the bistoury or tendon knife

or any other special instrument. The characteristic of these openings is their smallness, valvular nature, the instrument dividing the tissues underneath the skin, the perfect exclusion of atmospheric air. It is best adapted for the division of tendons; inserting the knife underneath it, turning the cutting edge of the knife upward and dividing the tendon, then hermetically seal the wound with gut and carbolic acid, or adhesive plaster.

Dissections are merely incisions. A puncture is merely the first part of an incision; but punctures are often made for a special purpose, as vaccination, exploration, and is usually performed either with the bistoury, lancet or trocar.

Cauterization.—By this term we understand the application of a caustic to a part whose organization and lips we intend to destroy. Caustics are used in a liquid, soft, solid or powdered state.

The following rules are applicable to the using of all caustics:

1. Wipe all humidities from the surface.
2. Protect all the adjacent parts with plaster, or chloroform, and gutta serena.
3. Sponge away all blood or serum which exudes during the application.
4. After cauterization, any part of the caustic that may remain decomposed should be carefully neutralized.

The most valuable caustics are, the mineral and vegetable acids, caustic potassæ, chromic acid, chloride and sulphate of zinc, carbolic acid, &c.

Ligatures.—Ligation consists in strangulating a part, in order to divide it gradually, or to suspend its circulation, or to procure its separation by sloughing.

The nature of the ligature varies, silk, gold, silver, platinum wire, catgut, &c. With reference to all ligatures there are three rules to observe—

1. Choose a ligature strong enough.
2. Include only a moderate thickness of ligature.
3. Never include the skin in the ligature.

The application of the ligature for the removal of parts embraces three modes of performance:

1. Immediate constriction.
2. Continued constriction.
3. Progressive constriction.

The first attempts at constriction are painful, but, as the constriction goes on, the parts lose their sensibility, as well as their vitality. If it is a tumor, as the ligature tightens, it swells, enlarges and becomes livid.

There are some precautions indispensable to the application of all ligatures.

1. Tighten carefully and gradually.
2. If the tissue is soft and easily torn, do not strangulate it at once, as a quick division is attended with hemorrhage.
3. If the tissues are hard and difficult to break or penetrate, carry on the constriction gradually.

4. If any unpleasant nervous symptoms come on, as convulsions, loosen the ligature till they have abated.

Hemorrhage.—An escape of blood from the vessels in which it is naturally contained constitutes a hemorrhage. It is the most dreadful accident that can complicate or follow operations. It is important, therefore, to be thoroughly familiar with every means capable of preventing, or suspending, or arresting it during an operation, and effectually preventing it. Compression and ligation are the standard means.

Compression is intended to flatten an artery for the time being, so as to efface its calibre. Two things are necessary in compression: 1. The artery must not be too deep; 2. It must rest on something firm or bony.

The vessel is easily recognized by its pulsation; then press it with the fingers on some bony surface. The pressure should be applied across the vessel, and be sufficient to efface the arterial trunk.

Winch is often used, &c. Tourniquet is the appropriate instrument.

Acupressure, the insertion of a needle under the vessel to compress it so as to obtain union of the internal coats; insert an inch and a half from the wound on the cardiac side of the vessels.

Ligature in a mass.—Compression of particular arteries is resorted to in certain operations, as the primitive, carotid, facial, temporal, subclavian, axillary, brachial, radial, ulnar, abdominal aorta, external iliac and femoral. Capillary hemorrhage may be arrested by retraction to a greater or less degree; it may be arrested by removing all clots from the wound, dipping a sponge in cold water, and apply or expose the bleeding surface to the air, and if these do not succeed, or are insufficient, styptics should be called into use; these consist chiefly of ice; absorbents, as spider's web, inert powders; astringents, as alum, sulphate of iron, perchloride, carbolic acid, creosote, acetic acid and water; cauterization, as mineral acids, &c.

Arterial hemorrhage may be arrested by a great variety of methods: ligature or acupressure the only reliable method; *torsion* well adapted for vessels of fourth or fifth order. Obliterate the internal coat; *crushing* or *tearing*, an imitation of nature, tearing or stretching so as to produce retraction of the internal coat. *Expectoration*, trusting to the effort of nature, as fainting; styptics, the best is carbolic acid, because it coagulates the parts; cauterization; mechanical plugs, compression direct and indirect; flattening of arteries, turning back or inversion.

Reunion.—Wounds, the result of operation, are left to suppurate, or to heal by first intention, primary and secondary union. Union by first intention is obtained as follows: the hemorrhage arrested by the proper means, the wound washed, no clots or foreign bodies in it, edges evenly and neatly approximated, lead sutures applied between the suture, lead ribbon or adhesive plaster, elevated position, dry dressing, circulation kept at 75 or 80°, controlled by arterial sedatives if necessary, or maintained at that point by brandy and milk, beef essence. For the purpose of keeping the parts in approximation until effused lymph unites them, *sutures are used*. There are four varieties:

1. Interrupted suture.
2. Glover's suture.
3. Quilled suture.
4. Suture with needles.

(1.) *The interrupted suture* is applicable to nearly all wounds and operations.

(2.) *The Glover's suture* is now pretty well discarded except for post-mortem examinations.

(3.) *The quilled suture* is only used in ruptured perineum.

(4.) *Suture by needles* is merely a form of interrupted suture, so is the button suture.

There are certain rules to be observed in the application of all sutures:

(1.) The wound should be well washed, and free from blood and foreign bodies.

(2.) The edges should be neatly adjusted, and brought together without dragging.

(3.) The integuments should be traversed at an angle of 45° .

(4.) The thread should penetrate so deeply as not to leave a space underneath where pus might collect.

(5.) We must avoid pricking nerves, blood-vessels or tendons.

(6.) In whatever position the needle is held, the skin should be placed between the finger and thumb and index finger.

(7.) If suppuration is feared, a space should be left open at the bottom of the wound to permit the exit of pus.

(8.) The distance between the points of sutures varies, according to the thickness of the flesh. There must be no gaping; the distance should be the same between each. As a general rule, the first suture should be inserted first in the middle of the wound; but, if there is an angle, as in the lip, begin at the angle.

The best means to diminish pain during an operation is by inhalation of the following: *R*.—Alcohol, one part; chloroform, two parts; ether, three parts.

Our best counter-irritants are, sinapisms, irritating plaster, acupuncture, dry cupping, &c.

Operations performed on the epidermis.—Corns.—A corn is an excrescence in the shape of a nail, the point of which is buried in the deep layer of the epidermis, sometimes passing beyond the dermis as far as the periosteum or articular capsule. There are two modes of removal, extirpation and cauterization; the latter is to be preferred. The feet should be bathed, for half an hour, two or three nights, in an alkaline wash; then rub with sand-paper; after which paint the corn thoroughly with acetic acid, for several nights, when the corn will, in a few days, drop out.

Bunion.—A bunion is a simple thickening of the epidermis. It has a large base, and several layers of epidermis adhering to the skin in several points. They may be filed down with sand-paper or pumice-stone, extracted or excised.

Warts.—An elongation of the cutis vera. There are several

methods of removal—ligature, cauterization, extraction, excision. Each has its special indication; cauterization by nitric or chromic acid preferred.

An abnormal increase of the nail, if it exists, should be removed by cutting it off.

If there is pus or a foreign body under the nail, then the nail, by scraping it with a bit of glass, until it may be easily opened with the point of an instrument.

If the nail grows into the flesh, it either deviates from its proper direction, and grows into the flesh, ulcerating the adjacent parts, or the flesh is pressed against the nail by tight shoes. Scraping through the middle of the nail tends to correct the great width; extirpation of the imbedded portion of the nail; the application of collodion and tannic acid to the lower portion of the toe. If the matrix is diseased, it is a good plan to remove the matrix and nail together.

Operations of the skin and cellular tissue.—The general run of operations here are, with abscesses, cysts with liquid contents, tumors, wounds and foreign bodies.

Restoration of mutilated parts, unhealthy cicatrices.—*Abscesses.*—There are four modes of opening abscesses—caustic, seton, puncture, incision.

Cysts with liquid contents.—Sebaceous tumors, formed by irritation and inflammation of a sebaceous follicle of the skin; excision or extirpation, so as to destroy the secreting walls of the sac.

Cysts of cellular tissue.—A serous collection in the cellular tissues; excision, extirpation, destruction of its walls.

Synovial cysts.—A dropsy of the subcutaneous bursæ mucosæ; most commonly met with on the olecranon, beneath the patella, &c. Treatment consists in compression, iodine and friction.

Hydatid cysts should be opened and their walls destroyed.

Tumors.—They differ from abscesses and cysts, in being formed of solid contents. They may be surrounded by a cyst or otherwise.

The usual mode of extirpation is removal by the knife, ligature or caustic. Before operating, consider well the kind of incision that is required to expose the tumor. The incision, in all cases, should vary according to its size, base, healthy or diseased state of the integuments.

A simple, straight incision is suitable for small tumors immediately under the skin, without adhesions, and capable of escaping through the opening on slight pressure.

Whatever kind of incision is required or performed, it should extend to the base of the tumor, so as to permit free dissection, and only preserve sufficient skin to cover the wound. In all cases, take care of the adjacent parts; on organs, nerves, vessels, muscles, never leave a bit of the tumor.

Encysted tumors are best removed by excision.

Fatty tumors: remove by incision of the skin down to the surface of the tumor, and dissect it out with the handle of the scalpel.

Carcinomatous tumors are best removed by the application of the

inspissated extract of sheep-sorrel, or by free thorough extirpation, and destroy its roots effectually.

Erectile tumors.—There are three modes of removal :

1. Arrest the circulation of blood through them.
2. Obliterate the dilated vessels of the tumor by inflammation.
3. destroy the tumor with caustics.

These three methods involve the use of astringent remedies: compression, puncturation, vaccination, seton, needles or caustics.

Wounds and foreign bodies.

Incised wounds are made with clean, cutting, sharp instruments. There are four indications in treatment: 1, arrest hemorrhage; 2, remove foreign bodies; 3, bring the parts together and keep them in union; and, 4, promote adhesion.

Punctured wounds are most dangerous of all wounds, because, from their depth, they are liable to implicate blood-vessels, nerves and viscera. The parts bruised and torn are disposed to inflame and suppurate; there is no exit to matter; foreign bodies are apt to be carried deeply; more liable to be followed with tetanus. Dilate them and convert them into simple incisions.

Contusion is an injury inflicted by some obtuse instrument. Ecchymosis: lotion of arnica.

Bites of rabid animals.—Immediately ligate above and below the wound; then apply either excision or suction; then cauterize freely with caustic potass.; then poultice with elm, lobelia and stramonium.

Restoration of mutilated parts, or surgical autoplasty.—The principle on which this surgical operation rests, is the possibility of reuniting portions brought from one part of the body to another. A flap near the loss of substance, or one from a distance.

Observe the following rules:

1. All regions are not suitable for the formation of flaps. The skin must present a certain mobility, and not be too isolated from the subjacent tissue.

2. An important consideration is the existence of vascular trunks in the pedicle of the flap. The skin of the cranium has the advantage over all other regions.

3. It is necessary to give it the shape of the part intended to supply.

4. The flap should always be cut one-third larger than the place intended to supply—there is so much retraction in the part.

5. Make the pedicle, as much as possible, from a part where vessels come.

6. The flap should be united by points of suture, more or less numerous, and an effort made to obtain union by first intention.

7. After its separation, the flap becomes pale and cold, but should be kept constantly wet with comp. tincture capsicum, by having it constantly applied.

8. All compression should, at first, be avoided, especially toward the pedicle; any ununited portions, or its edges, should be stimulated by caustic.

Vicious cicatrix.—A cicatrix consists of an organization of plastic lymph on the surface of suppurating sores—appearing first as a thin

pellicle—red, easily broken; gradually becomes solid; when it is white its organization is perfected.

The deformities that cicatrices are liable to, are: 1, prominent cicatrices; 2, warty tumors; 3, too narrow cicatrices; 4, adhesion; 5, abnormal obliterations.

1. *Prominent cicatrices*, shaved off or touched with caustic.

2. *Warty tumors of cicatrices* often take on the character of a fungous; the application of a caustic; and if these fail, removal by the knife.

3. *Cicatrices*, when narrow or contracted, incisions are made on one and the same points.

4. *Abnormal adhesions*, such as the cicatrices uniting the fingers to each other, the penis to the scrotum or abdomen, the arm to the trunk. Pierce the skin with a trocar, at the point at which, in the normal state, the separation of the parts begin, and through these holes pass a little bit of lead ribbon, and leave it there till cicatrization is complete; then cut the adhesion.

5. *Abnormal obliterations*.—Complete obliteration or stricture of the natural orifices of the body, as the vulva, mouth. Dilatation by mechanical means, bougies, prepared sponge.

Operations upon muscles and tendons.—The section of a muscle or tendon, or aponeurosis, is performed in case of retraction, resisting other means.

Tendo Achillis, for club-foot; sterno-cleido-mastoid, in wry-neck; the temporal, platysma, trapezius and rectus colli for curvature of spine; latissimus dorsi and ham-string muscles for ankylosis, and extensor tendons for deformity of foot and hands.

Section of the sterno-mastoid.—The retraction of the sterno-mastoid is the principal cause of torticollis, a particular muscle acting directly on the head, while the clavicular portion acts upon the shoulder.

The section of this muscle is performed by subcutaneous incision, inverting the bistoury from and letting it point on the other side of the muscle.

Point to be chosen, inferior third or middle, the higher; the muscle is smaller and away from the vessels.

Tendo Achillis.—The section of this tendon is to be performed in cases of club-foot; its division at once cuts off the predominant action of the gastrocnemius and soleus. The tendo Achillis is large above and small below, forming a round cord an inch and a half above the heel inserted into the os calcis. The posterior tibial artery, veins and nerve, are situated on the inside of the tendon, two inches above the insertion of the tendon.

Section of the palmar aponeurosis.—Permanent retraction of the fingers, whether it be congenital or acquired. It is frequently owing to a peculiar state of retraction of some fibres of the palmar aponeurosis, and at other times to abnormal bands or shriveling of skin. In all cases the indication is to cut across.

Operations on arteries.—Arteries are composed of three tunics, internal, middle and external, surrounded by a cellular sheath, and accompanied by nerves and veins.

The general rules of ligature affect three objects:—1. Uncovering the artery; 2. Isolating it, and, 3. Placing a ligature around it.

The parts must be carefully dissected down to the vessels by careful incision, and having reached it, the surgeon readily recognises it by its dull white color, by its being thicker than the vein, by its relations, by its flatness when compressed on the side next the heart, and by its pulsation.

Several incisions are always necessary, and when you begin do not look for the artery, but seek the first marked point of guidance, then the next, and so on, to the vessels.

To open the sheath, it should be pinched up with the forceps, and a small bit cut out of it with the bistoury, exposing as little as possible. Then pass the director under the artery, bent to suit the depth of the vessel. Then arm a probe with the ligature, and conduct it on the director, and afterward disengage the instrument, and leave the thread. Then tied evenly and firmly, so as to divide the two inner coats, leaving the external muscular coat in the ligature.

Exostosis.—In these cases we lay it bare like any other tumor, and remove the bony mass by a saw, trepan, perforator or scissors. In cases of caries, or gangrene of osseous tissue, they are best treated by caustics or resection.

By caustics, we transform the caries into a dry eschar, the exfoliation of which we must wait for.

Resection lays bare and removes the diseased portions; from the healthy portion granulations will sprout out. It is the quickest mode of dealing with them.

Necrosis.—When all or part of the thickness of a bone has been necrosed, a new osseous tube has formed around it, and encloses it on all sides, unless the bone has been exposed to the air. Across this shell small holes (*cloacæ*.) are eaten, by which matter escapes. The piece of bone thus enclosed is called the *sequestrum*.

Choose the spot where the soft parts are least thick, where the largest openings of communication between the sequestrum and exterior exist, and lay it bare the whole length of the diseased part. Remove the sequestrum, taking care not to break or bend the new bone, and dress as an ordinary wound.

Compound fractures.—Remove splinters of bone, saw off fragments, or part of an end; if they form an impediment to reduction, close the wound with carbolic acid, ℥j; olive oil, ℥iv; pledgets soaked in it.

Non-union in fractures may be successfully treated by *friction*; rubbing the two ends of the bone against each other, counter-irritation, seton, ivory pegs and resection, leaving the parts bare, and sawing off the ends of the bones; then dress as in compound fracture, and put the limb in some immovable apparatus.

Resection.—The removal of the articular extremities of bones; the resection of long bones. A sufficient incision should be made to a free way to the bone, and expose, as little as possible, the muscles and tendons. The nervous, venous or arterial trunks must never be divided.

The bone being laid bare, see the extent to which it is diseased, and before applying the saw have every part well protected; then remove,

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and when the operation is finished, unite the wound with interrupted suture.

Amputations.—Amputations are divided into two great classes, as they divide the bone in its length, or disarticulate it.

There are several methods, distinguished chiefly by the form of the incisions in the soft parts, as the circular, oblique, oval, rectangular, &c. The preservation of muscles in the flap, in all cases, favors inflammation and suppuration, reunion being more speedy and less subject to accidents, when only the skin, cellular and adipose tissue, are used to cover the stump. This fact has given a preference for the rectangular flap, where the case will admit of it.

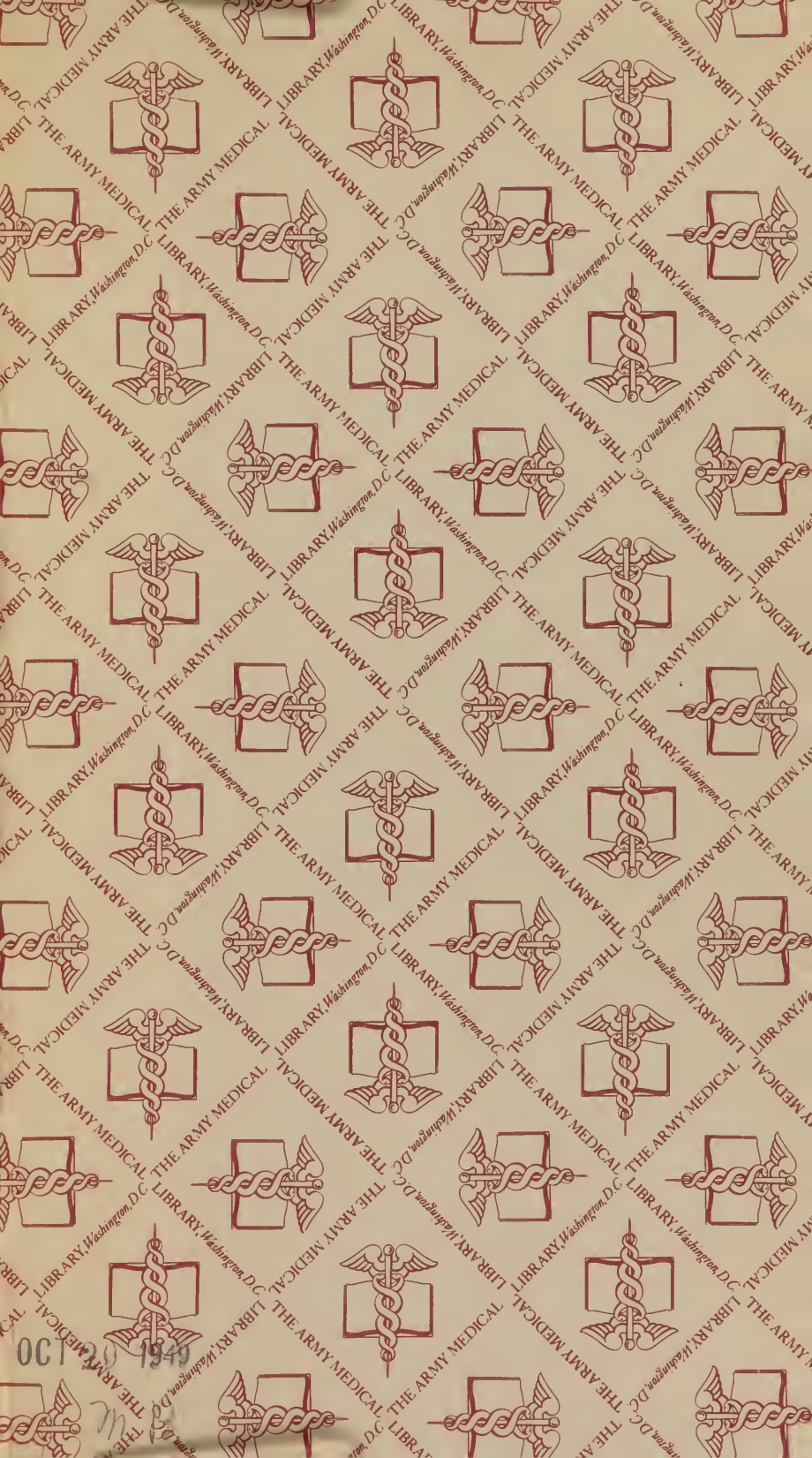
Circular method.—The bone is reached through a circular incision of the soft parts. Among the various *proceedings* that have been recommended in performing this mode of operation, I consider the following to be the best:

Double muscular incision.—Apply two bandages, and divide, at one stroke, the skin and muscles together down to the bone; the upper bandage is removed to permit the superficial muscles to retract, or even this retraction may be aided by means of a split bandage. Under this retractor, divide the muscles that adhere to the bone; lastly, saw off the bone on a level with the second incision.



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